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Water Resources Data for New Jersey Water Year 1984. Volume 2. Delaware River Basin and Tributaries to Delaware Bay

(U.S.) Geological Survey, Trenton, NJ

May 85

U.S. Department of Commerce
National Technical Information Service
NTIS

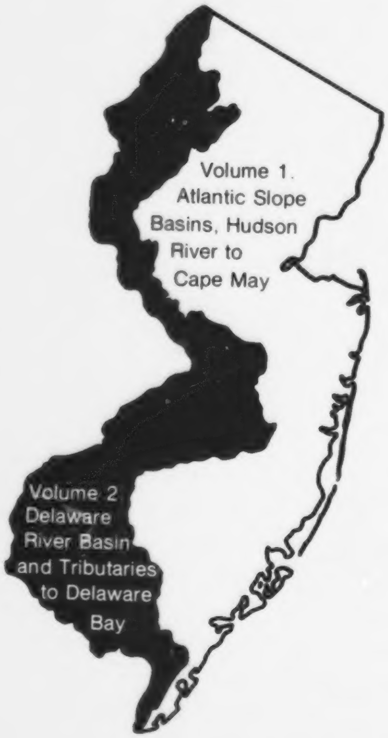
PB86-102704

U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

THE GREAT SEAL OF THE STATE OF NEW JERSEY

Water Resources Data New Jersey
Water Year 1984

Volume 2. Delaware River Basin and Tributaries to Delaware Bay


Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2 Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-2
Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

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INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1984

1983

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United States Department of the Interior

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
ROOM 409, FEDERAL BUILDING
402 EAST STATE STREET
TRENTON, NEW JERSEY 08608

I AM PLEASED TO ANNOUNCE THE RELEASE OF OUR ANNUAL REPORT, "WATER RESOURCES DATA FOR NEW JERSEY, WATER YEAR 1984". THIS REPORT WAS PREPARED BY THE U.S. GEOLOGICAL SURVEY, IN COOPERATION WITH THE STATE OF NEW JERSEY AND SEVERAL LOCAL AND FEDERAL GOVERNMENT AGENCIES.

ONCE AGAIN THIS YEAR, THE REPORT IS ISSUED IN TWO VOLUMES: VOLUME 1.--ATLANTIC SLOPE BASINS, HUDSON RIVER TO CAPE MAY; VOLUME 2.--DELAWARE RIVER BASIN AND TRIBUTARIES TO DELAWARE BAY.

THE REPORT CONTAINS RECORDS OF STREAM DISCHARGE AND WATER-QUALITY MEASUREMENTS, ELEVATIONS OF LAKES AND RESERVOIRS, MAJOR WATER-SUPPLY DIVERSIONS, AND TIDAL ELEVATIONS. ALSO INCLUDED ARE RECORDS OF SEDIMENT CONCENTRATIONS AND RECORDS OF GROUND-WATER QUALITY AND GROUND-WATER LEVELS. SPECIAL SECTIONS ARE DEVOTED TO LOW-FLOW AND CREST-STAGE DATA AND SUMMARIES OF TIDAL CREST ELEVATIONS IN THE NEW JERSEY ESTUARIES AND INTRACOASTAL WATERWAYS.

COPIES OF THIS REPORT ARE FOR SALE THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VIRGINIA 22161. WHEN ORDERING, REFER TO U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-1 (FOR VOLUME 1) AND NJ-84-2 (FOR VOLUME 2). FOR FURTHER INFORMATION ON THIS REPORT, OR IF THE ADDRESS ON THE MAILING LABEL HAS CHANGED, OR IF YOU NO LONGER DESIRE TO RECEIVE THIS REPORT, PLEASE CONTACT ME AT THE ABOVE ADDRESS OR TELEPHONE [609] 989-2162.

SINCERELY,

William R. Bauersfeld

WILLIAM R. BAUERSFELD, CHIEF
HYDROLOGIC STUDIES SECTION

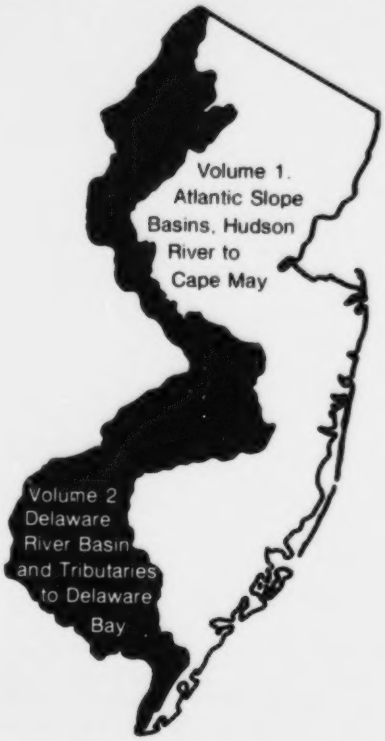
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

THE GREAT SEAL OF THE STATE OF NEW JERSEY

Water Resources Data
New Jersey
Water Year 1984

Volume 2. Delaware River Basin and Tributaries to Delaware Bay

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and F.L. Schaefer


Volume 1.
Atlantic Slope Basins, Hudson River to Cape May
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Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-2

Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to

District Chief, Water Resources Division
U.S. Geological Survey
Room 409, Federal Building
402 East State Street
Trenton, New Jersey 08608

1985

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and tributaries to Delaware Bay

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

E. Dorr
R.L. Ulery
M.A. Hardy

R.D. Schopp
W.D. Jones
G.M. Farlekas

S.J. Perry and I.C. Heerwagen word processed the text of the report, and G.L. Simpson drafted the illustrations.

This report was prepared under the general supervision of D.E. Vaupel, District Chief, New Jersey District, and S.P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the State of New Jersey and with other agencies.

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16. Abstract (Limit: 200 words)

Water Resources data for the 1984 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 25 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 30 surface-water sites and 56 wells; and water levels for 27 observation wells. Also included are data for 27 crest-stage partial-record stations, 7 tidal crest-stage gages, and 18 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the national water data system operated by U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

17. Document Analysis a. Descriptors
*New Jersey, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Checmical analyses, Sediments, Water temperatures, Sampling sites, Water Levels, Water Analyses

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Department of Commerce

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SURFACE WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (e) elevation, gage height or contents, (t) water temperature, (s) sediment]

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INTRODUCTION

Water resources data for the 1984 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains water discharge at 25 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 30 surface water sites, and 56 wells; and water levels for 27 observation wells. Also included are data for 27 crest-stage partial-record stations; 7 tidal crest-stage gage and 18 low-flow partial-record stations. Locations of these sites are shown in figures 5, 6, and 7. Additional water data were collected at various sites not part of the systematic data collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 1 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, Local, and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in offical Survey reports on a State-boundary basis. These offical Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume of the report is identified as "U.S. Geological Survey Water-Data Report NJ-84-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 989-2162.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection, Robert E. Hughey, Commissioner.
  Division of Water Resources, John W. Gaston, Jr., Director.
New Jersey Water Supply Authority, Rocco Ricci, Executive Director.
North Jersey District Water Supply Commission, Dean C. Noll, Chief Engineer.
Passaic Valley Water Commission, W.I. Inhoffer, General Superintendent and Chief Engineer.
County of Bergen, Edward R. Ranuska, Director of Public Works and County Engineer.
County of Camden, Barton Harrison, Chairman of Camden County Planning Board.
County of Morris, James Plante, Chairman of Morris County Municipal Utilities Authority.
County of Somerset, Thomas E. Decker, County Engineer, and Thomas Harris, Administrative Engineer.
Township of West Windsor, Larry Ellery, Chairman of Environmental Commission.
Township of Bridgewater, Cynthia Jacobson, Chairman of Environmental Commission.

Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 50 surface-water stations, and for the collection of sediment records at one stream-sampling station, by the U.S. Environmental Protection Agency for the collection of chemical analyses at four stream-sampling stations, and by the U.S. Army Armament Research and Development Center for the collection of records at two surface-water stations and one water-quality monitoring station. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Assistance was also furnished by the National Weather Service and the National Ocean Survey.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark, New Brunswick and Spotswood; American Cyanamid Co.; Commonwealth Water Co.; Elizabethtown Water Co.; Ewing-Lawrence Sewerage Authority; Hackensack Water Co.; Johns-Manville Products Corp.; and Monmouth Consolidated Water Co.; Jersey Central Power and Light Co.

Organizations that supplied data are acknowledged in station descriptions.

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The Water Resources Data for New Jersey were processed and prepared for publication under the supervision of W.R. Bauersfeld, Chief, Hydrologic Studies Section. The data were collected, computed and processed by other personnel as follows:

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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow in the 1984 Water Year was excessive throughout the State, ranging from 168 percent of normal in the north to 128 percent of normal in the south. Precipitation during the water year varied greatly within the State, ranging from 164 percent of normal (69.3 inches) in the northeast to 115 percent of normal (48.4 inches) in the southeast. Reservoir content decreased until November, when they all showed a sharp increase; by the end of December almost all reservoirs were spilling. Reservoir contents did not drop below 100 percent of capacity until August and, by the end of the water year, contents were still above normal at 84 percent of capacity. In general, field specific conductance of surface waters was below normal for the period May through September, due primarily to the diluting effect of the above-average precipitation. Water-table levels also were at or above normal for most of the State.

Water year 1984 began with streamflow about normal at all index stations. Subsequently, streamflow steadily increased until, by the end of December, it was 200 percent of normal in the north and 143 percent of normal in the south. Precipitation averaged about 212 percent of normal in December. Major storms occurred on December 13, 22, and 29. On December 13, Little Falls, in the northeastern part of the State, reported 3.6 inches of rain. Flooding was reported in the area of Wayne and Lincoln Park. Streamflow returned to normal in January and February. On March 29, the highest tides since 1962 caused considerable damage to many coastal communities. Precipitation in March, April and May was much above normal, which again caused very high streamflow. An intense storm occurred on April 5, and Essex Fells, near West Orange, reported 6.6 inches of rain in 24 hours. Flooding was reported throughout the northeastern part of the State. New high peaks were recorded at all gaging stations on the Wanaque and Ramapo Rivers, and at Rockaway River upstream from the reservoir at Boonton. Another storm on May 29 and 30 resulted in from 3.5 to 4.5 inches of rainfall in most northern communities. A new high monthly mean discharge for May was recorded at South Branch Raritan River at High Bridge; this exceeds the previous high set in 1947. Heavy precipitation continued through June and July. Most notable was a storm on July 6 and 7 concentrated along the Lamington River in the Raritan River basin where Pottersville reported 9.02 inches of rain; total monthly precipitation at this site was 17.11 inches. New peaks of record were recorded at many gaging stations in the Raritan River basin. For the remainder of the year, streamflow remained high throughout the State.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 204 ft^3/s for the water year, which is 168 percent of the 66-year average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 111 ft^3/s for the water year, which is 128 percent of 59-year average. The observed annual mean discharge of the Delaware River at Trenton was 15,740 ft^3/s, which is 135 percent of normal. The Delaware River is highly regulated by reservoirs and diversion. The natural flow at Trenton (adjusted for upstream storage and diversions) was 107 percent of normal for the year. Figures 2 and 3 compare the monthly and annual discharges with past records at these index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 46.8 billion gallons (62 percent of capacity) on October 1, 1983, to 63.5 billion gallons (84 percent of capacity) on September 30, 1984. Storage in Wanaque Reservoir increased from 18.9 billion gallons (67 percent of capacity) on October 1, 1983 to 24.3 billion gallons (87 percent of capacity) on September 1, 1984. Pumped storage in Round Valley Reservoir increased from 40.6 billion gallons (74 percent of capacity) on October 1, 1983, to 47.4 billion gallons (86 percent of capacity) on September 30, 1984.

Monthly mean and minimum specific conductance values at two of the NASQAN (National Stream Quality Accounting Network) sites -- the Maurice River near Norma (southern New Jersey) and the Passaic River at Little Falls (northern New Jersey) -- were lower than those for the previous year for nearly the entire May through September period. This condition prevaled for 3 of the 5 months at the continuous record station -- Delaware River at Trenton.

The water table was at or above normal level throughout most of the State from October 1983 through September 1984. There was a seasonal rise in the water table in most wells from October to a peak in the period March through June, followed by a seasonal decline through September. The level of the water table reflects natural recharge and discharge, and indirectly reflects long-term precipitation trends.

Artesian water levels in wells tapping the heavily stressed confined aquifers of the Coastal Plain rose seasonally from October 1983 through March or April 1984, then declined through September. During the year, there was a net decline in water levels in many areas, continuing a long-term downward trend caused by withdrawals of ground water for industrial and public supplies. A notable exception occurred in the nortrhern part of the Coastal Plain where 1984 water levels in the Potomac-

Raritan-Magothy aquifer system and the Englishtown aquifer leveled off from the steady declines of preceding years.

Monthly water levels are compared with long-term averages at two water-table observation wells in figure 4. The wells shown are the Bird well in Hunterdon County and the Crammer well in Ocean County. For further comparison, multi-year hydrographs are provided for most of the wells given in these reports. The hydrographs are shown with the 1984 water-level data.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer unit codes and geologic names of the formations in which the sampled wells are finished. The aquifer unit codes also appear in the ground-water quality tables.

112SFDF , STRATIFIED DRIFT
112CPMY , CAPE MAY FORMATION, UNDIFFERENTIATED
112ESRNS , CAPE MAY FORMATION, ESTUARINE SAND FACIES
121CNSY , COHANSEY SAND
121CKKD , KIRKWOOD-COHANSEY AQUIFER SYSTEM
122KRKDU , RIO GRANDE WATER-BEARING ZONE OF THE KIRKWOOD FORMATION
122KRKDL , ATLANTIC CITY 800-FOOT SAND OF THE KIRKWOOD FORMATION
124PNPN , PINEY POINT AQUIFER
124MNSQ , MANASQUAN FORMATION
125VNCN , VINCENTOWN FORMATION
211MLRW , WENONAH-MOUNT LAUREL AQUIFER
211EGLS , ENGLISHTOWN AQUIFER
211MRPA , POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, UNDIFFERENTIATED
211MRPAU , UPPER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211MRPAM , MIDDLE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211MRPAL , LOWER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211ODBG , OLD BRIDGE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
211FRNG , FARRINGTON AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
231BRCK , BRUNSWICK FORMATION
231SCKN , STOCKTON FORMATION

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within

48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile ($ft^3/s/mi^2$, CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum is a datum plane that is approximately at the land surface at the well.

Low tide is the minimum height reached by each falling tide.

Mean high or low tide is the average of all high or low tides, respectively, over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem (1970).

National Geodetic Vertical Datum of 1929 (NGVD of 1929). A geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada, formerly called "Mean Sea Level."

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in active water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2/time) for periphyton and macrophytes and mg C/(m^3/time) for phytoplankton] are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2/time) for periphyton and macrophytes and mg O_2/(m^3/time) for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Screened interval (FT) is the length of well screen through which water enters a well, in feet below land surface.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physcial surface upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.................Animal
Phylum..............Arthropoda
Class..................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus................Hexageria
Species......Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total" (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample).

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1975, WRD was used, which was the abbreviation for "Water-Resources Data."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

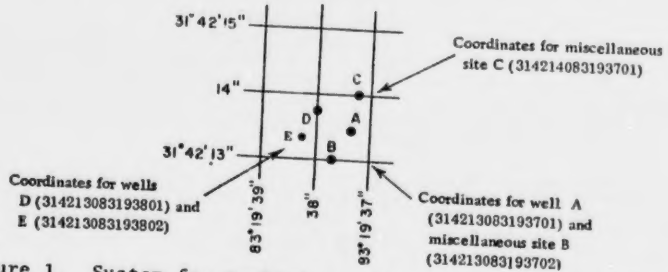
31°42'15"
14"
31°42'13"
Coordinates for miscellaneous site C (314214083193701)
C
D
A
E
B
Coordinates for wells D (314213083193801) and E (314213083193802)
83°19'39"
38"
93°19'37"
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 1 site by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers; and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. The biological information may include qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using Table 1 below.

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Wershaw and others. The collection and analysis of aquatic, biological and microbiological samples are described by Greeson and others.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through many vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuousdigital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office (for address see Page IV).

The quality of ground water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot (1975).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a NJ-WRD well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of the extremes (highest and lowest water levels) are unknown. In these reports the water-level extremes are given with the interim dates together with the manually measured water levels.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	886	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	944	1951	1191	1973-74	2164
1943	986	1952	1221		

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producting a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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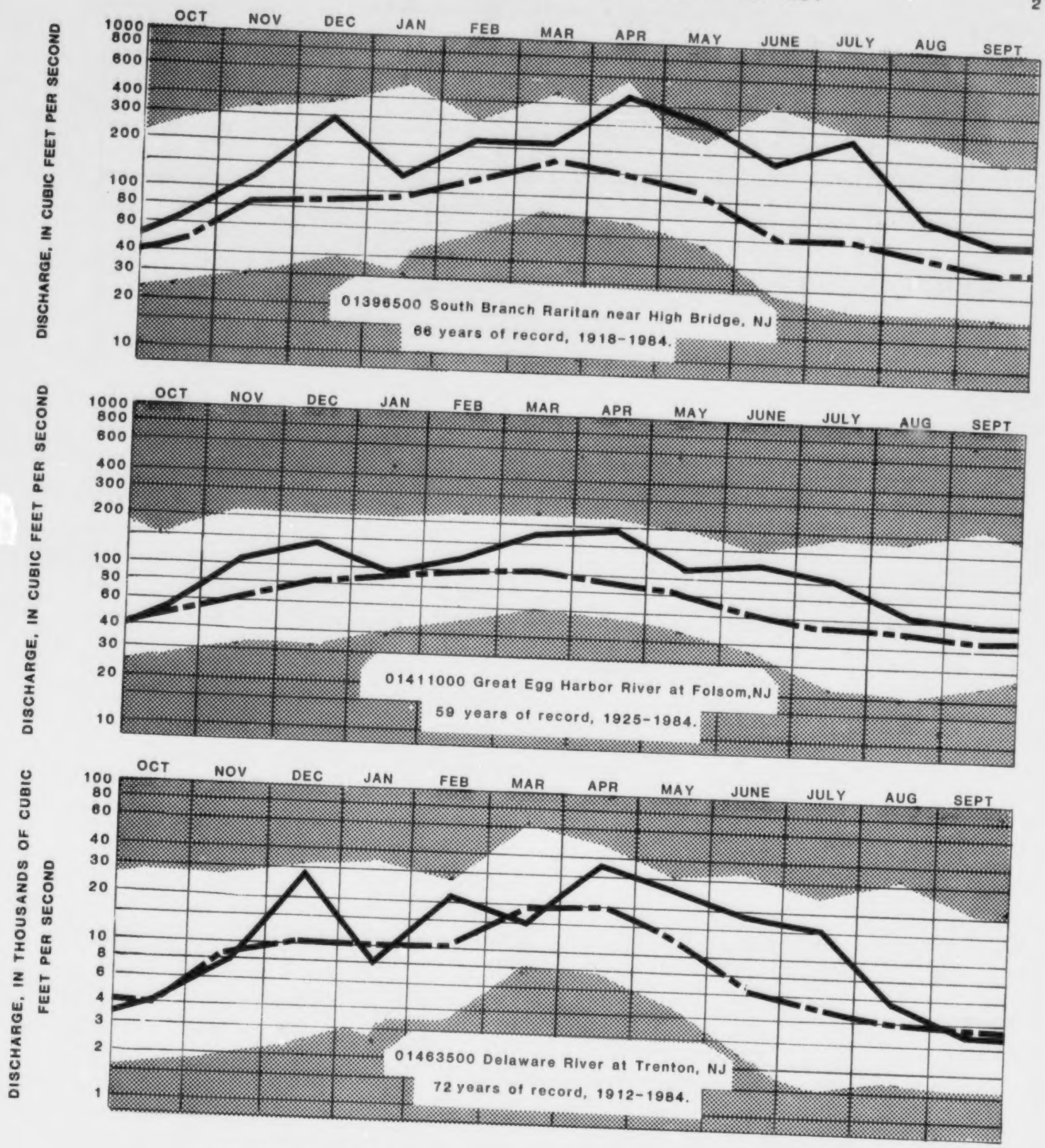


Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1984 water year.

Broken line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1984 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS.

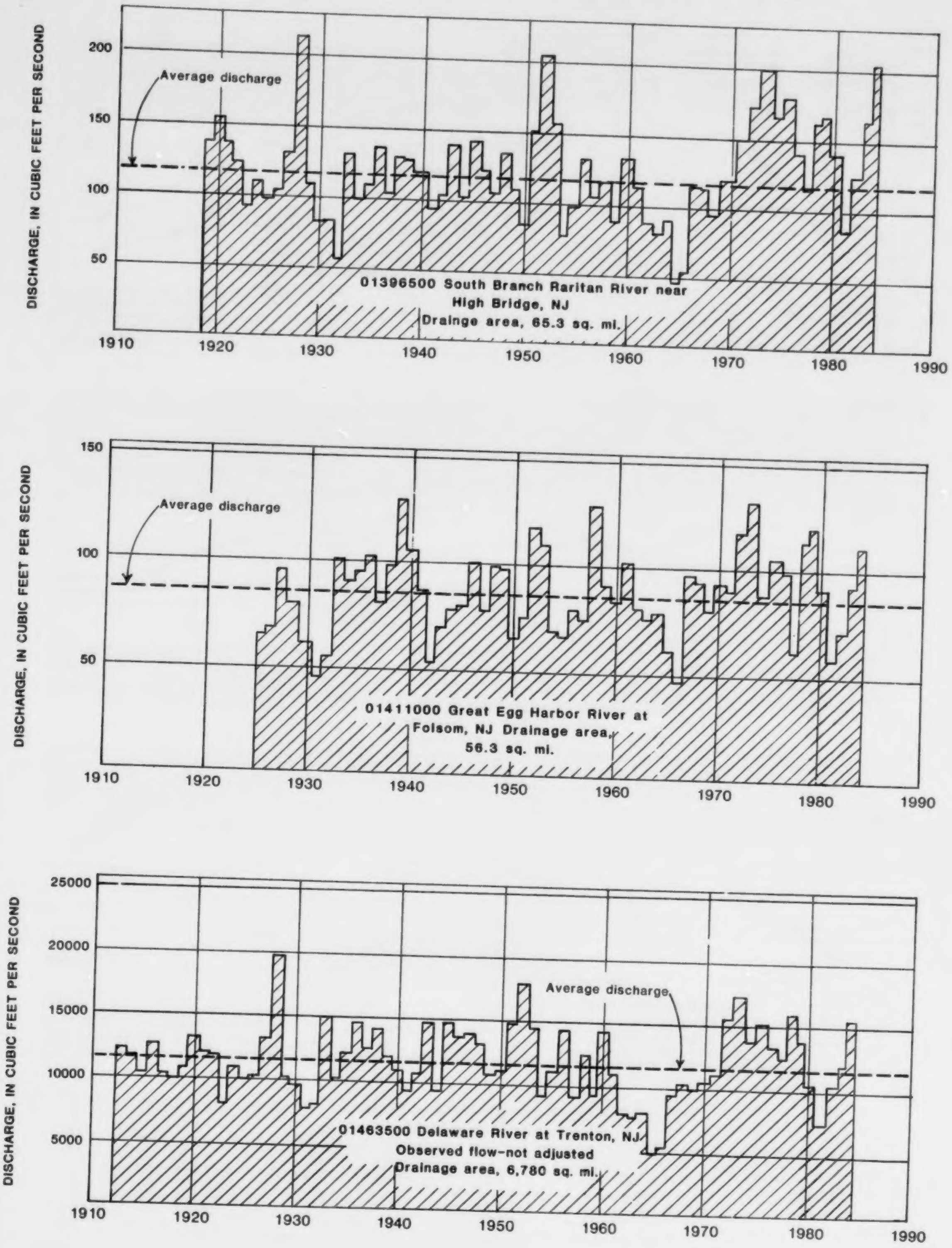
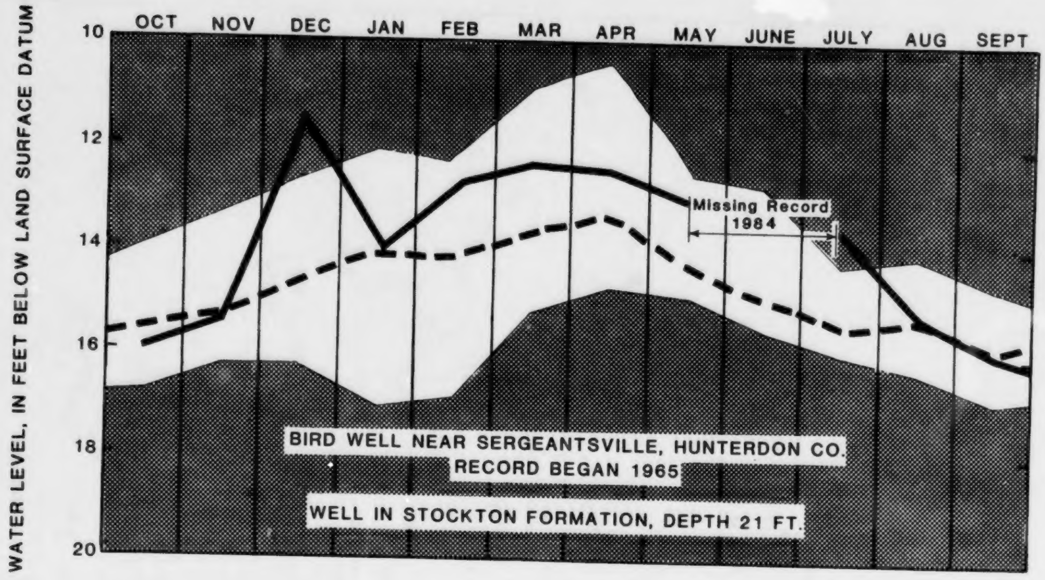
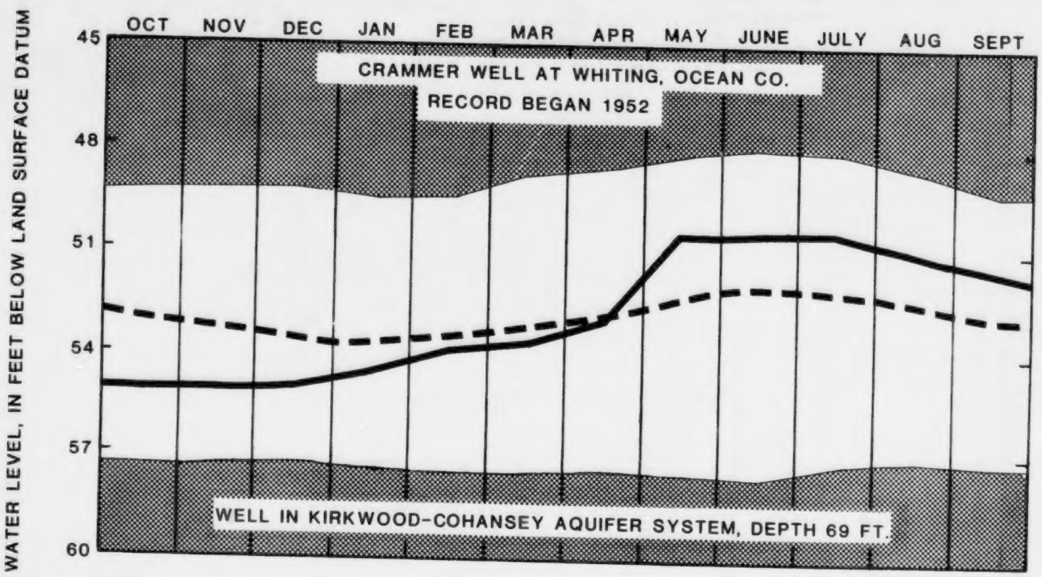


FIGURE 3.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS





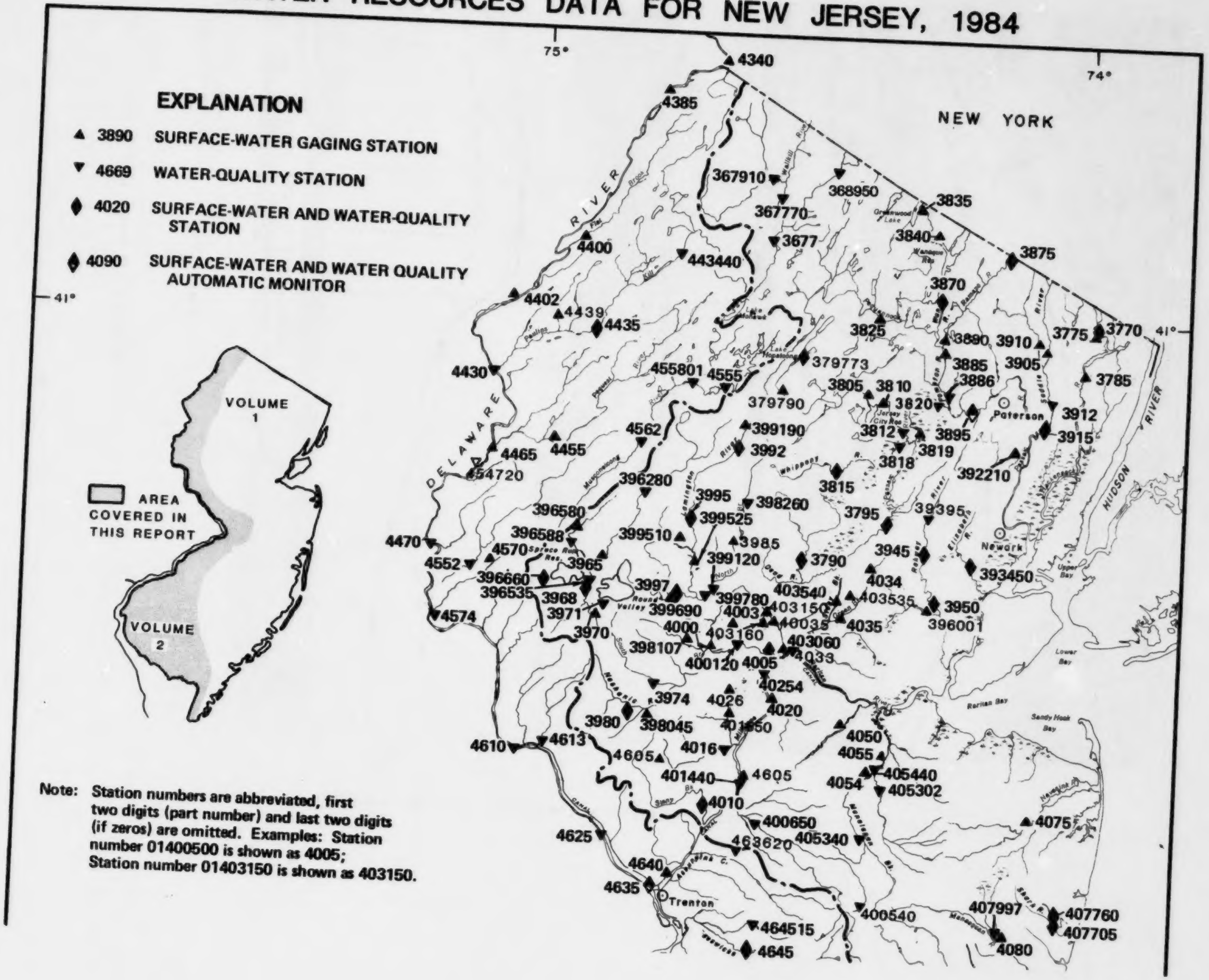
Unshaded area.--Indicates range between highest and lowest recorded monthly minimum water levels, prior to the current year.

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

FIGURE 4.--MONTHLY GROUND-WATER LEVELS AT KEY WATER-TABLE OBSERVATION WELLS.

WATER RESOURCES DATA FOR NEW JERSEY, 1984


75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
Paterson
Newark
Trenton
Upper Bay
Lower Bay
Raritan Bay
Sandy Hook Bay
Greenwood Lake
Lake Hopatcong
Round Valley
Spruce Run Res.
VOLUME 1
VOLUME 2
AREA COVERED IN THIS REPORT
4340
4385
367910
368950
367770
3835
3840
3677
443440
4400
3875
3870
4402
4439
4435
3825
3775
3770
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3905
3785
4430
455801
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379773
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3805
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379790
3912
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399190
3992
4562
4465
4455
454720
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392210
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396280
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399525
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39395
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399120
4034
393450
396660
396535
3997
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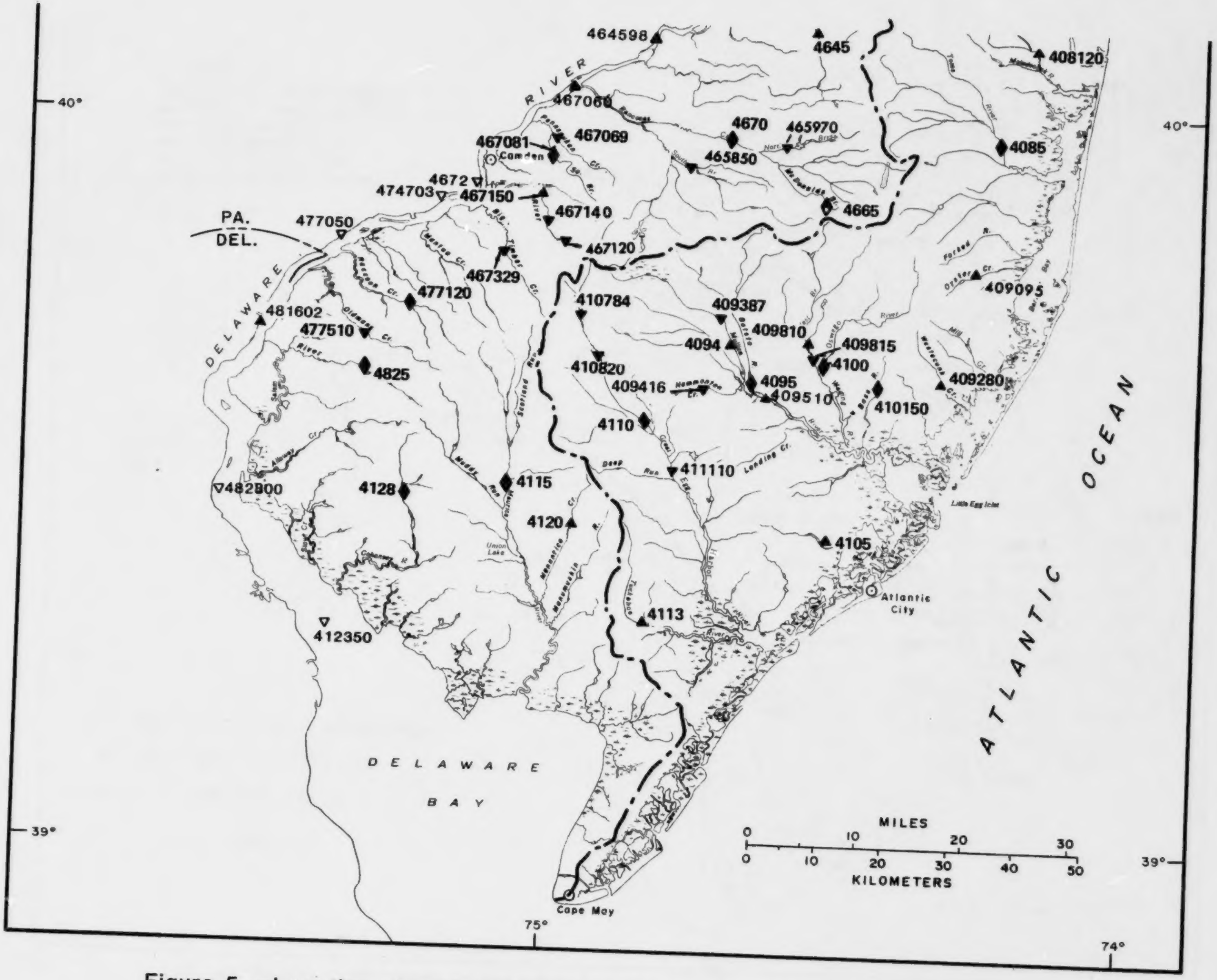
403540
403535
399780
3950
403150
3971
399690
4003
396001
4574
4000
40035
4035
3970
403160
403060
398107
4033
400120
4005
40254
3974
4026
4020
3980
398045
401650
4050
4610
4613
4605
4016
4055
401440
4605
405440
4054
405302
4010
400650
4625
463620
405340
4075
4640
4635
400540
407997
407760
407705
464515
4645
4080

EXPLANATION

▲ 3890	SURFACE-WATER GAGING STATION
▼ 4669	WATER-QUALITY STATION
◆ 4020	SURFACE-WATER AND WATER-QUALITY STATION
◆ 4090	SURFACE-WATER AND WATER QUALITY AUTOMATIC MONITOR

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.


40°
39°
74°
75°
PA.
DEL.
DELAWARE RIVER
DELAWARE BAY
ATLANTIC OCEAN
Camden
Atlantic City
Cape May
Little Egg Inlet
Union Lake
MILES
0 10 20 30
0 10 20 30 40 50
KILOMETERS
464598
4645
408120
467060
4670
465970
4085
467081
467069
465850
4672
474703
467150
467140
4665
477050
467120
467329
477120
409095
481602
410784
409387
477510
409810
4094
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4100
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410820
409416
4095
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409280
410150
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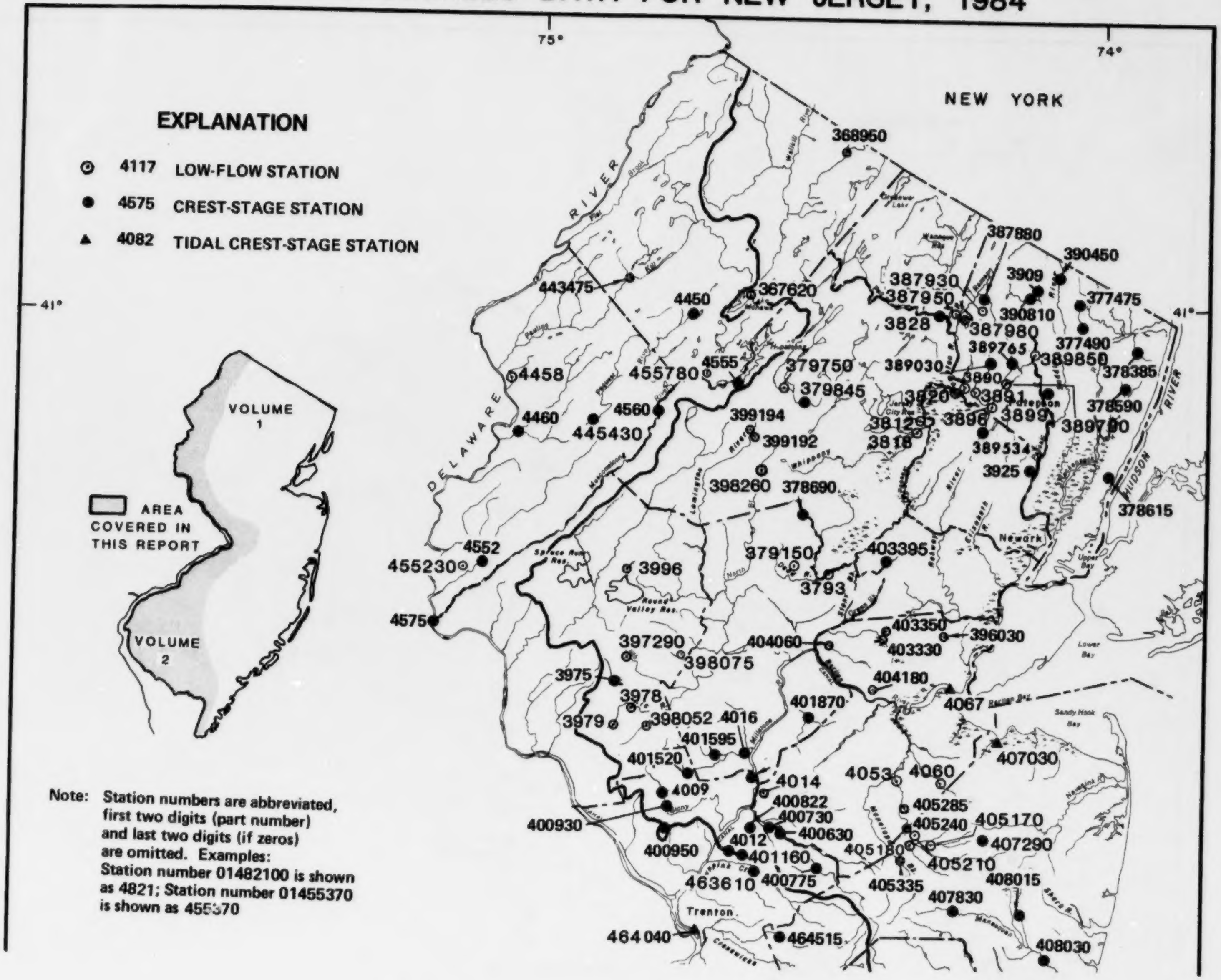
Figure 5.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1984



EXPLANATION

- ⊙ 4117 LOW-FLOW STATION
- ● 4575 CREST-STAGE STATION
- ▲ 4082 TIDAL CREST-STAGE STATION

▭ AREA COVERED IN THIS REPORT

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821; Station number 01455370 is shown as 455370

75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
VOLUME 1
VOLUME 2
Newark
Trenton
Upper Bay
Lower Bay
Sandy Hook Bay
Round Valley Res.
Spruce Run Res.
368950
387880
390450
387930
387950
3909
390810
377475
3828
387980
377490
389765
389850
378385
389030
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378590
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389700
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389534
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378615
367620
443475
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455780
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379845
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4460
445430
399194
399192
398260
378690
4552
455230
4575
3996
379150
3793
403395
403350
403330
396030
397290
398075
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404180
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398052
4016
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401595
401520
407030
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4014
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400822
405285
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405170
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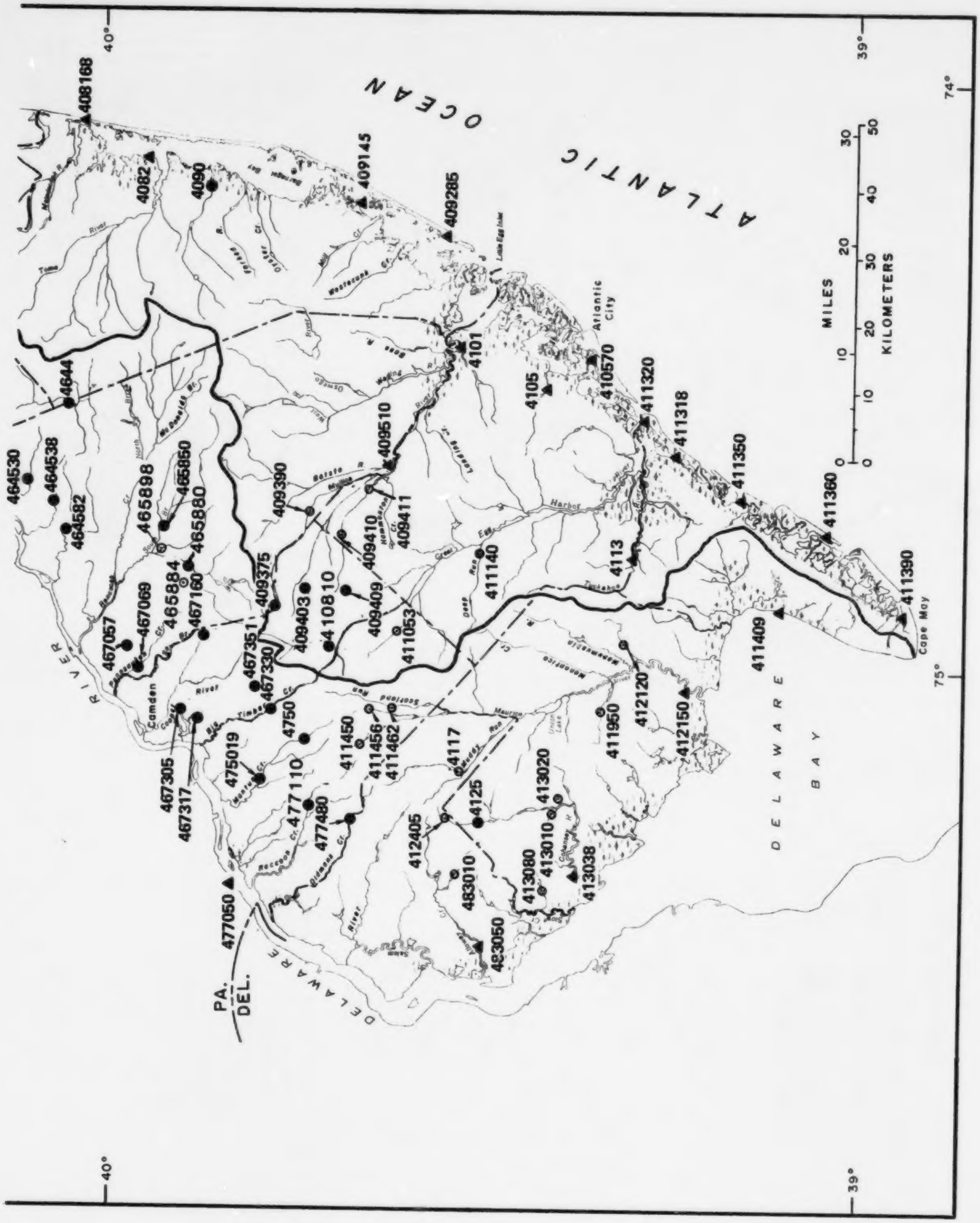
40°
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ATLANTIC OCEAN
DELAWARE BAY
DELAWARE RIVER
PA.
DEL.
Camden
Atlantic City
Cape May
Little Egg Inlet
MILES
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KILOMETERS
408168
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411950
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409510
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410810
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411462
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412405
413020
413010
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483010
483050

Figure 6.--Location of low-flow and crest-stage partial record stations.

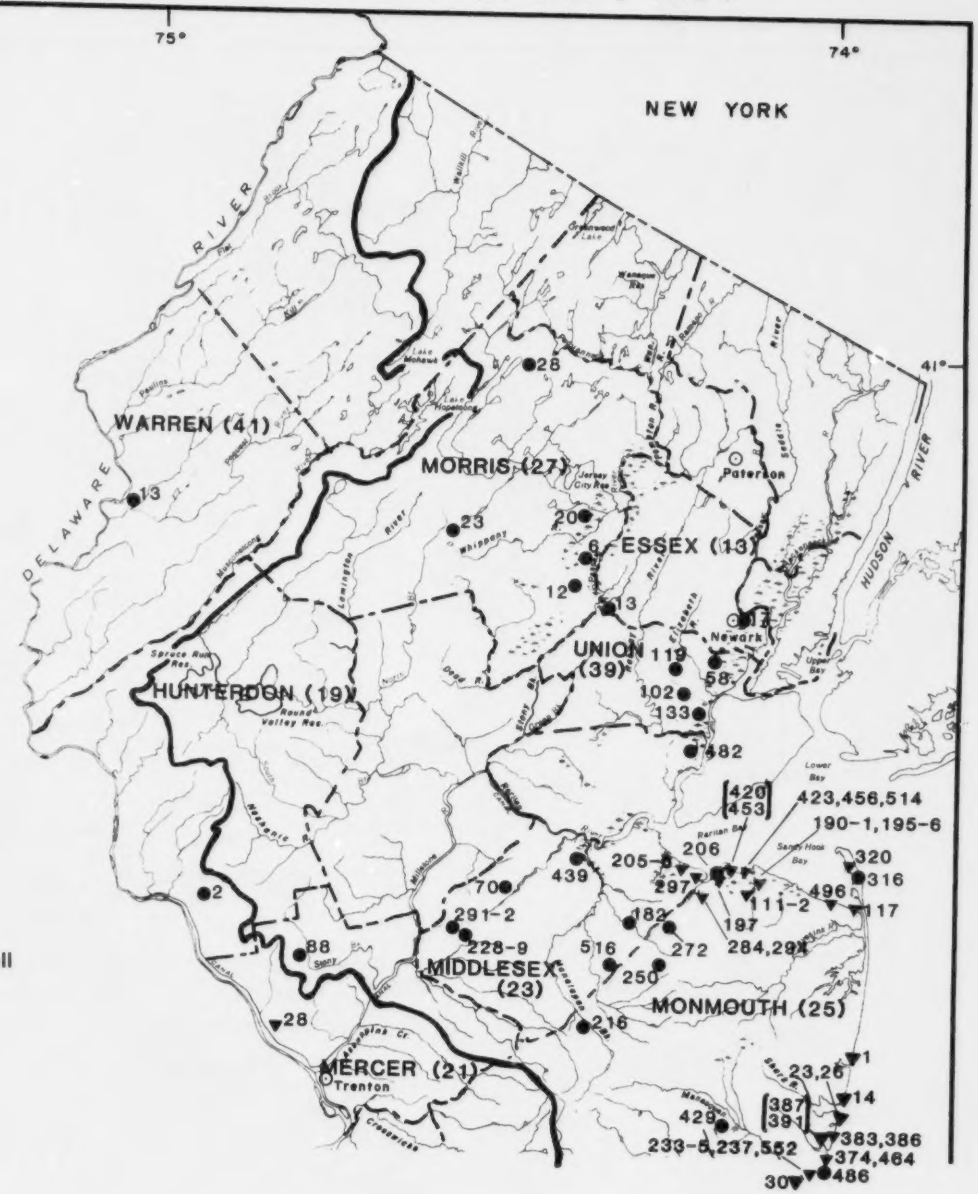
WATER RESOURCES DATA FOR NEW JERSEY, 1984

EXPLANATION

▼807 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.

●570 LOCATION OF WATER-LEVEL OBSERVATION WELLS AND WELL NUMBER.

VOLUME 1
VOLUME 2
AREA COVERED IN THIS REPORT


75°
74°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
WARREN (41)
MORRIS (27)
ESSEX (13)
UNION (39)
HUNTERDON (19)
MIDDLESEX (23)
MONMOUTH (25)
MERCER (21)
Paterson
Newark
Trenton
Spruce Run Res.
Round Valley Res.
Lake Mohawk
Lake Hopatcong
Jersey City Res.
Lower Bay
Upper Bay
Raritan Bay
Sandy Hook Bay
13
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6
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13
17
119
58
102
133
482
420
453
423,456,514
190-1,195-6
206
205-6
297
197
111-2
284,291
320
316
496
117
439
70
291-2
228-9
182
272
516
250
216
2
88
28
1
23,26
14
387
391
429
233-5,237,552
383,386
374,464
30
486

Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05 .

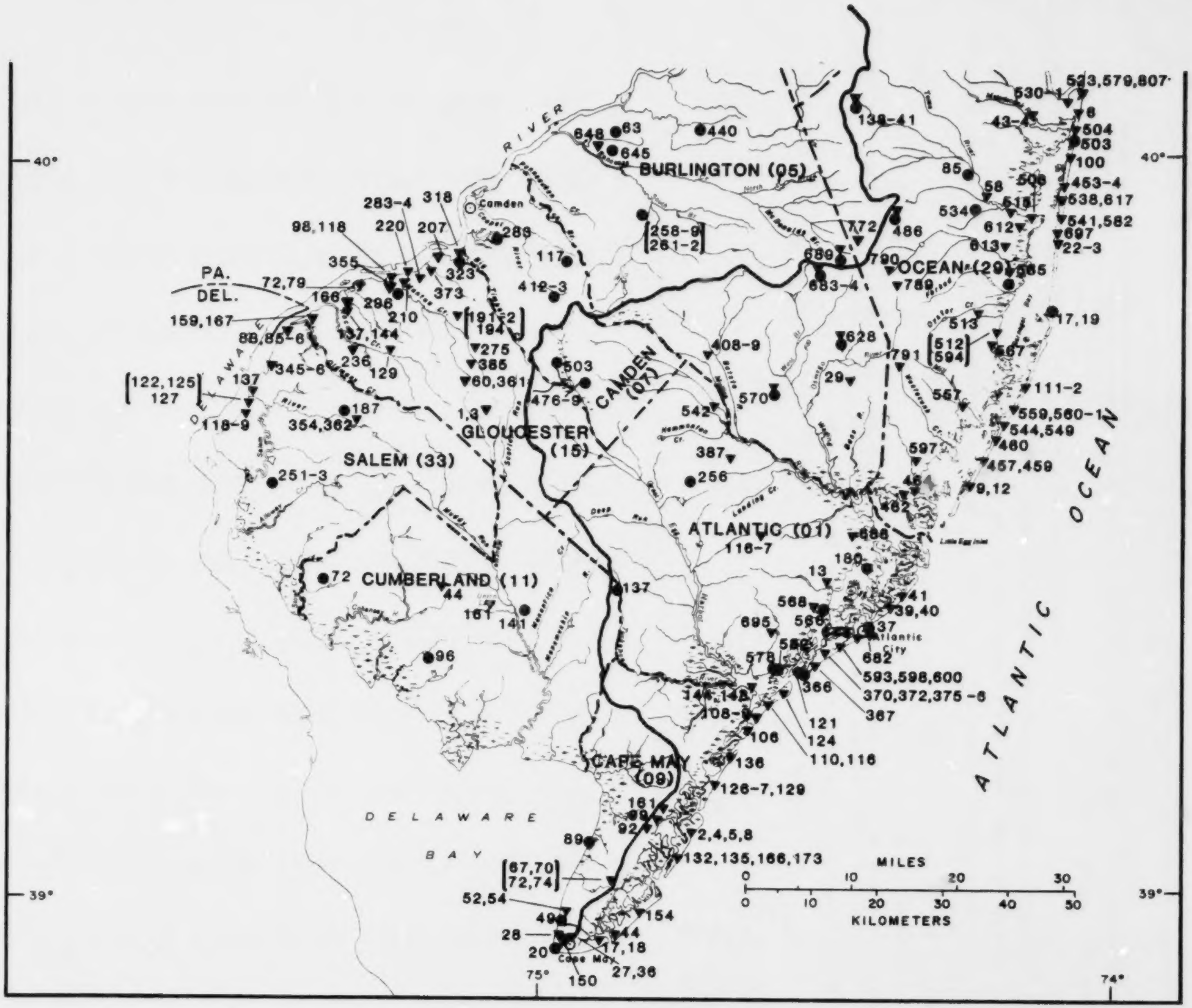

40°
39°
74°
75°
RIVER
DELAWARE
PA.
DEL.
Camden
BURLINGTON (05)
OCEAN (29)
CAMDEN (07)
GLOUCESTER (15)
SALEM (33)
ATLANTIC (01)
CUMBERLAND (11)
CAPE MAY (09)
Atlantic City
Little Egg Inlet
Cape May
DELAWARE BAY
ATLANTIC OCEAN
MILES
0 10 20 30
0 10 20 30 40 50
KILOMETERS
523,579,807
530-1
6
504
503
100
453-4
538,617
541,582
697
22-3
43-4
138-41
440
648
63
645
85
58
506
515
534
612
613
565
486
772
689
790
683-4
789
17,19
513
512
594
567
628
791
29
557
111-2
559,560-1
544,549
460
457,459
597
9,12
462
408-9
570
542
387
256
688
116-7
180
13
41
39,40
568
37
682
593,598,600
370,372,375-6
367
366
695
578
121
124
110,116
144,148
108-9
106
136
126-7,129
137
161
99
92
89
2,4,5,8
132,135,166,173
67,70
72,74
52,54
49
28
20
150
154
44
17,18
27,36
258-9
261-2
318
283-4
220
207
98,118
355
288
323
373
117
412-3
72,79
166
296
210
191-2
194
159,167
88,85-6
137,144
236
129
275
385
60,361
503
476-9
122,125
127
137
345-6
118-9
187
354,362
1,3
251-3
72
44
161
141
96

Figure 7.-- Location of ground-water quality stations and observation wells.

MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from Almond Road Bridge at Norma, and 0.8 mi downstream from Blackwater Branch.

DRAINAGE AREA.--112 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--52 years, 168 ft^3/s, 20.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,360 ft^3/s Sept. 2, 1940, gage height, 8.72 ft, from rating curve extended above 3,000 ft^3/s; minimum daily, 23 ft^3/s Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 2	---	390	---	Apr. 16	2200	468	3.60
Mar. 16	---	675	---	June 1	1000	723	4.04
Mar. 29	2400	636	3.90	July 2	1200	636	3.90
Apr. 7	2000	*834	4.21	July 20	0500	381	3.43

Minimum discharge, 71 ft^3/s Oct. 10, 11, and 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	86	219	263	224	320	527	285	701	207	171	117
2	96	85	201	243	211	380	456	290	655	538	157	110
3	110	83	186	226	201	330	437	285	538	428	182	109
4	105	93	204	212	206	290	390	270	326	313	183	146
5	92	93	237	205	206	255	565	260	300	260	183	161
6	85	92	249	201	203	240	688	270	291	242	193	157
7	80	89	265	198	200	250	790	280	267	232	195	143
8	77	87	260	192	193	265	741	280	247	264	200	130
9	74	85	243	187	188	270	594	280	225	328	192	118
10	72	95	227	184	188	260	496	300	206	362	179	114
11	71	128	215	210	188	240	433	340	181	364	172	109
12	89	132	220	207	180	230	433	330	160	361	187	109
13	110	135	253	198	185	235	420	300	160	332	205	109
14	114	130	278	192	190	290	371	270	177	307	196	109
15	111	140	289	187	200	400	382	248	202	266	193	129
16	107	232	290	178	230	620	419	240	194	201	183	132
17	99	229	279	171	285	590	443	231	190	222	169	127
18	96	229	259	168	345	520	424	216	234	254	155	125
19	92	222	239	168	370	450	428	196	282	303	148	120
20	88	207	222	165	310	400	417	186	266	374	147	114
21	85	229	204	159	270	360	370	211	250	353	139	108
22	82	228	225	153	240	320	350	230	236	327	133	103
23	87	223	261	148	220	285	310	216	216	303	128	97
24	120	227	256	151	218	280	300	217	193	316	129	93
25	123	267	160	186	250	280	320	218	197	290	124	93
26	123	288	204	208	300	285	350	204	189	254	119	91
27	115	286	267	234	315	295	350	205	181	208	115	91
28	107	275	235	249	300	314	325	202	177	208	113	102
29	100	258	276	246	310	456	300	206	170	202	114	123
30	93	237	285	236	---	581	280	407	166	196	122	121
31	89	---	278	233	---	546	---	621	---	191	121	---
TOTAL	2967	5190	7486	6158	6926	10837	13109	8294	7777	9006	4947	3510
MEAN	95.7	173	241	199	239	350	437	268	259	291	160	117
MAX	123	288	290	263	370	620	790	621	701	538	205	161
MIN	71	83	160	148	180	230	280	186	160	191	113	91
CFSM	.85	1.54	2.15	1.78	2.13	3.13	3.90	2.39	2.31	2.60	1.43	1.04
IN.	.99	1.72	2.49	2.05	2.30	3.60	4.35	2.75	2.58	2.99	1.64	1.17

CAL YR 1983 TOTAL 68393 MEAN 187 MAX 738 MIN 55 CFSM 1.67 IN. 22.72
WTR YR 1984 TOTAL 86207 MEAN 236 MAX 790 MIN 71 CFSM 2.11 IN. 28.63

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to current year.
WATER TEMPERATURES: October 1966 to January 1968 (once daily), January 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 1968.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 151 micromhos Jan. 25, 1984; minimum, 52 micromhos June 16, 1982.
WATER TEMPERATURE: Maximum, 28°C July 21, 1980; minimum 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 151 micromhos Jan. 25; minimum, 53 micromhos May 31.
WATER TEMPERATURES: Maximum, 25.5°C June 11, 12; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 22...	1215	227	82	5.8	10.5	1.2	8.8	79	2.2	--	790
JAN 18...	1030	167	86	6.0	1.5	1.4	12.4	87	--	--	--
MAR 26...	1325	295	70	5.9	9.0	1.5	10.2	88	.9	K7	240
MAY 15...	1140	453	68	6.3	14.5	<1.0	7.9	77	1.0	<2	K200
JUL 25...	1200	295	60	6.1	23.5	1.7	5.4	63	3.0	K46	2100
SEP 18...	1315	124	71	6.6	16.5	1.4	9.1	92	--	K27	K650

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 22...	22	4.5	2.5	6.1	1.7	7.0	21	10	.20	6.7	64
JAN 18...	22	4.6	2.5	6.4	1.6	7.0	14	11	<.10	6.1	64
MAR 26...	18	3.6	2.1	4.9	1.6	3.0	11	9.1	<.10	2.5	52
MAY 15...	17	3.6	1.9	5.2	1.5	5.0	8.0	8.6	.10	1.8	38
JUL 25...	16	3.6	1.8	4.7	1.5	6.0	11	8.7	<.10	6.5	70
SEP 18...	17	3.5	2.1	4.7	1.7	7.0	7.7	8.6	.10	4.3	58

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 22...	11	6.7	66	.92	.540	1.6	.410	.200	.200	11
JAN 18...	6	2.7	90	2.1	.030	.60	.030	<.010	<.010	4.0
MAR 26...	3	2.4	56	1.4	<.010	.50	.020	<.010	<.010	--
MAY 15...	6	7.3	64	.93	.400	5.2	.010	<.010	<.010	7.7
JUL 25...	13	10	56	<.61	<.070	.70	.060	.030	<.020	18
SEP 18...	16	5.4	44	1.4	.050	.60	<.010	<.010	.020	--

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV											
22...	1215	200	96	80	<.5	<1	<1	<3	2	310	2
JAN											
18...	1030	290	96	79	<.5	<1	3	<3	2	150	3
MAY											
15...	1140	140	1	65	<1	<1	20	<3	3	430	3
SEP											
18...	1315	50	37	65	<1	1	2	<3	1	230	4

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
22...	6	52	<.1	<10	4	<1	<1	28	34	23
JAN										
18...	<4	34	<.1	<10	2	<1	<1	28	8	19
MAY										
15...	<4	21	<.1	<10	6	<1	<1	23	8	17
SEP										
18...	<4	14	.1	<10	4	<1	<1	22	7	10

01411500 MAURICE RIVER AT NORMA, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	16.5	17.0	11.0	9.0	10.0	7.5	5.0	7.0	1.0	.0	.5
2	18.0	16.5	17.0	12.0	10.0	11.0	6.0	5.0	5.5	2.0	.5	1.5
3	18.0	16.0	17.0	12.5	11.5	12.0	7.0	6.0	6.5	2.0	1.0	1.5
4	19.5	17.0	18.0	12.5	10.5	11.5	7.0	6.0	6.5	3.0	1.5	2.0
5	20.0	18.0	19.0	10.5	9.0	10.0	7.0	6.0	6.5	3.5	2.5	3.0
6	19.5	18.5	19.0	9.5	8.5	9.0	8.0	6.5	7.0	3.5	2.0	3.0
7	18.0	16.5	17.5	10.0	8.5	9.5	7.5	5.0	6.5	3.5	2.5	3.0
8	17.5	14.0	15.5	10.5	9.0	10.0	5.0	3.5	4.5	3.0	2.0	2.5
9	16.5	13.0	15.0	11.5	9.5	10.5	4.5	3.0	3.5	3.0	2.0	2.5
10	15.0	13.0	14.0	12.5	10.5	11.0	5.5	4.0	5.0	4.0	2.5	3.0
11	16.0	13.5	15.5	13.0	12.0	12.5	5.5	4.0	4.5	3.0	1.5	2.5
12	17.5	16.0	17.0	11.5	9.0	10.5	8.0	5.5	6.5	1.5	1.0	1.5
13	19.0	17.5	18.0	8.5	7.5	8.0	10.0	8.5	9.0	2.0	1.5	2.0
14	19.0	17.5	18.5	8.0	7.5	8.0	10.0	9.5	10.0	3.0	2.0	2.5
15	17.0	15.0	16.0	9.5	8.0	8.5	10.0	9.5	10.0	2.5	1.5	2.0
16	16.0	14.0	15.0	10.0	9.5	9.5	9.0	7.5	8.5	2.0	1.5	1.5
17	15.5	13.5	14.5	9.0	8.0	8.5	7.5	5.5	7.0	2.5	1.5	2.0
18	15.0	13.0	14.0	8.0	7.0	7.5	5.5	4.0	4.5	2.0	1.5	1.5
19	14.0	13.5	14.0	9.0	7.0	8.0	4.0	3.0	3.5	2.5	1.0	2.0
20	13.5	13.0	13.0	10.0	7.5	9.0	2.5	1.0	2.0	1.5	.5	1.0
21	13.0	12.5	13.0	11.5	10.5	11.0	2.0	.5	1.5	1.0	.0	1.0
22	12.5	11.5	12.0	10.5	9.5	10.5	4.5	2.0	3.5	1.0	.0	.5
23	13.0	12.0	12.5	10.5	9.0	10.0	3.5	2.0	2.5	2.0	.0	1.0
24	14.5	13.0	14.0	11.5	10.0	11.0	2.0	.0	1.0	3.0	2.0	2.5
25	14.0	13.0	13.5	11.5	8.0	10.0	.5	.0	.0	3.0	2.0	2.5
26	13.5	12.5	13.0	8.5	7.5	8.0	.0	.0	.0	3.5	2.0	2.5
27	12.0	11.0	11.5	8.5	7.0	8.0	.5	.0	.0	3.5	2.0	3.0
28	12.0	10.0	11.0	9.5	8.5	9.0	1.5	.5	1.0	3.0	2.0	2.5
29	13.0	11.5	12.0	10.0	8.5	9.5	1.5	1.0	1.0	3.0	2.0	2.5
30	11.5	10.0	10.5	8.5	7.0	8.0	1.0	.0	.5	3.0	2.0	2.5
31	10.5	9.0	10.0	---	---	---	.5	.0	.0	3.5	2.5	3.0
MONTH	20.0	9.0	15.0	13.0	7.0	9.5	10.0	.0	4.5	4.0	.0	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.0	2.0	4.0	2.5	3.5	9.0	5.5	7.0	18.5	15.0	16.5
2	3.0	1.0	2.0	4.5	2.5	3.5	10.5	6.5	8.5	17.5	14.5	16.0
3	4.5	2.5	3.5	4.5	2.5	3.5	12.5	9.0	11.0	16.0	15.0	15.5
4	5.0	4.0	4.5	5.5	3.5	4.5	11.5	10.5	11.0	17.0	15.0	16.0
5	4.5	3.5	4.0	5.5	4.0	4.5	13.0	11.5	12.0	18.0	15.0	16.5
6	4.0	3.5	3.5	6.0	4.5	5.0	12.5	11.5	12.0	16.5	15.0	16.0
7	4.0	2.5	3.5	5.5	3.5	4.5	11.5	10.0	11.0	15.0	14.5	14.5
8	3.5	2.0	3.0	5.0	3.5	4.0	11.5	9.0	10.0	16.5	14.0	15.0
9	4.0	2.5	3.0	3.5	2.0	2.5	12.0	9.5	10.5	16.5	14.5	15.5
10	5.5	2.5	4.0	3.5	1.5	2.5	12.5	9.0	11.0	16.0	14.0	15.0
11	6.5	4.5	5.5	5.0	2.5	4.0	13.0	10.0	11.5	17.0	14.5	16.0
12	6.5	5.5	6.0	4.5	3.0	3.5	14.5	10.5	12.5	17.0	16.0	16.5
13	7.0	5.5	6.5	4.0	3.5	3.5	14.5	12.0	13.5	18.0	15.5	17.0
14	8.5	7.0	7.5	5.0	3.5	4.0	13.0	12.0	12.5	17.0	14.5	16.0
15	10.5	8.0	9.5	6.5	4.0	5.5	11.5	11.0	11.5	15.5	13.5	14.5
16	10.0	9.5	10.0	8.0	5.0	6.5	12.0	11.0	11.5	14.0	13.0	13.5
17	9.5	9.0	9.0	7.5	6.0	7.0	14.5	11.0	12.5	14.0	11.5	13.0
18	10.0	8.5	9.0	8.5	6.0	7.5	15.0	12.5	13.5	13.5	12.0	13.0
19	10.0	8.0	9.0	9.0	7.5	8.0	14.0	12.5	13.0	14.5	13.0	13.5
20	10.5	9.0	9.5	11.0	7.5	9.0	14.5	12.0	13.5	18.0	14.5	16.0
21	9.0	7.5	8.5	10.5	9.0	9.5	14.5	12.0	13.5	19.5	16.0	18.0
22	8.5	6.5	7.5	9.5	8.0	8.5	12.5	11.0	12.0	21.0	18.0	19.5
23	8.0	6.5	7.5	9.5	8.0	8.5	11.0	10.0	10.5	22.0	19.5	20.5
24	10.5	8.0	9.0	9.5	7.5	8.5	11.0	10.5	10.5	21.0	19.0	20.0
25	9.5	8.0	9.0	9.0	7.0	8.0	11.5	10.0	10.5	21.5	18.5	20.0
26	8.0	6.0	7.0	9.5	7.0	8.0	15.0	10.0	12.5	22.5	20.0	21.5
27	6.0	4.5	5.5	9.5	6.5	8.0	17.0	12.5	14.5	21.5	20.5	21.0
28	7.5	5.0	6.5	9.0	7.0	8.0	15.5	13.5	14.5	20.5	19.5	20.0
29	6.5	3.5	5.5	7.0	5.0	6.0	17.5	13.5	15.5	20.0	19.0	19.5
30	---	---	---	5.5	4.5	5.0	16.5	14.5	15.5	19.0	16.5	17.5
31	---	---	---	7.0	5.0	6.0	---	---	---	16.5	15.5	16.0
MONTH	10.5	1.0	6.0	11.0	1.5	6.0	17.5	5.5	12.0	22.5	11.5	16.5

01411500 MAURICE RIVER AT NORMA, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	15.0	15.5	23.0	21.5	22.5	21.5	18.5	20.0	---	---	---
2	16.0	15.5	16.0	23.0	22.5	22.5	21.5	19.5	20.5	---	---	---
3	16.0	15.5	16.0	23.5	23.0	23.0	21.5	20.5	21.0	---	---	---
4	18.5	15.5	17.0	24.0	22.5	23.5	23.0	21.0	22.0	---	---	---
5	19.5	17.5	18.5	25.0	23.0	24.0	22.5	21.5	22.0	---	---	---
6	21.0	18.5	20.0	25.0	23.5	24.0	22.5	20.5	21.5	---	---	---
7	22.5	20.0	21.5	24.0	22.5	23.5	22.5	21.0	22.0	19.0	16.5	18.0
8	23.5	21.0	22.5	22.0	21.0	21.5	24.0	21.0	22.5	18.5	16.5	17.5
9	25.0	22.0	23.5	21.0	20.0	20.5	24.0	22.5	23.0	19.0	16.0	17.5
10	25.5	23.0	24.5	20.5	20.0	20.5	23.0	22.0	22.5	20.0	17.5	19.0
11	25.5	23.0	24.5	22.5	20.5	21.5	22.5	21.5	22.0	20.0	18.5	19.0
12	25.5	23.0	24.5	23.5	21.5	22.5	22.5	21.5	22.0	20.0	19.0	19.5
13	25.5	23.0	24.0	24.0	22.5	23.5	23.5	22.0	22.5	20.0	18.0	19.0
14	25.0	23.5	24.5	24.5	22.5	23.5	24.5	22.0	23.0	21.5	19.0	20.5
15	24.5	22.0	23.5	25.0	23.0	24.0	24.5	23.0	23.5	21.0	19.0	20.0
16	22.0	20.5	21.0	25.0	23.5	24.5	24.5	21.0	22.5	18.0	17.0	17.5
17	20.5	19.5	20.0	24.5	22.5	23.5	24.0	22.5	23.5	17.5	15.5	16.5
18	19.5	19.0	19.5	23.5	22.5	23.0	23.5	22.0	22.5	17.5	15.5	16.5
19	21.5	19.5	20.5	23.0	21.5	22.5	22.0	19.5	20.5	17.0	15.0	16.5
20	22.5	20.5	21.5	22.5	21.0	22.0	20.5	18.5	19.5	18.5	16.0	17.5
21	22.5	20.5	21.5	22.0	21.5	21.5	21.0	17.0	19.5	19.0	17.0	18.0
22	22.5	20.0	21.5	22.5	21.0	22.0	20.5	18.5	19.5	19.0	17.0	18.0
23	22.0	20.0	21.5	23.5	22.0	22.5	19.5	18.0	19.0	19.5	17.0	18.5
24	22.0	20.5	21.0	24.5	22.5	23.5	19.5	17.5	18.5	21.0	18.5	19.5
25	23.0	20.5	21.5	24.0	23.0	23.5	19.0	17.5	18.5	21.0	19.5	20.5
26	22.5	21.0	21.5	23.5	22.0	22.5	18.5	17.0	18.0	20.5	18.0	19.5
27	23.0	20.0	21.5	23.0	21.5	22.5	18.0	16.5	17.5	18.0	16.0	16.5
28	23.0	21.5	22.5	22.0	20.5	21.5	---	---	---	15.5	14.0	14.5
29	23.0	21.5	22.0	---	---	---	---	---	---	15.0	13.5	14.0
30	22.5	21.5	22.0	---	---	---	---	---	---	15.0	13.5	14.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	25.5	15.0	21.0	25.0	20.0	22.5	24.5	16.5	21.0	21.5	13.5	18.0
YEAR	25.5	.0	12.5									

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	76	74	75	80	78	79	81	75	78	77	76	77
2	76	72	75	80	79	79	82	76	80	79	77	78
3	75	73	74	81	79	80	83	75	81	81	79	80
4	76	73	75	81	78	79	83	70	76	81	80	80
5	74	73	73	80	77	79	74	71	73	81	79	80
6	74	72	73	80	77	79	74	72	73	80	78	79
7	75	73	74	78	77	78	71	69	70	79	78	79
8	76	75	75	79	78	79	74	69	72	79	77	78
9	77	76	76	78	77	77	74	72	73	79	77	78
10	77	75	76	78	75	77	76	73	75	79	77	78
11	76	75	76	78	75	77	76	73	75	77	75	76
12	79	74	77	77	76	76	77	75	76	85	78	81
13	80	75	78	78	76	78	76	73	74	80	78	79
14	77	75	76	79	76	78	77	74	75	85	79	81
15	81	74	76	78	76	77	77	74	76	89	82	85
16	82	77	80	81	76	78	75	72	74	84	82	82
17	77	73	74	77	75	76	75	72	74	84	82	83
18	74	72	73	79	76	78	76	73	75	90	80	85
19	75	73	74	80	78	78	77	74	76	87	80	83
20	76	74	75	81	77	79	79	77	78	88	86	87
21	76	75	76	81	73	76	78	76	77	87	81	85
22	77	74	76	86	77	83	78	72	75	88	81	86
23	82	75	77	86	80	84	74	72	73	87	86	87
24	80	77	79	85	80	82	76	75	75	121	88	94
25	79	78	78	80	73	77	82	77	80	151	97	116
26	77	76	77	80	74	78	82	78	80	97	88	92
27	80	75	78	80	77	79	81	79	80	87	79	83
28	80	78	79	79	77	77	82	78	80	84	79	82
29	80	79	80	79	74	77	80	77	79	82	81	82
30	81	79	80	82	75	78	79	78	79	83	79	82
31	81	79	80	---	---	---	79	76	78	83	79	82
MONTH	82	72	76	86	73	78	83	69	76	151	75	83

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	83	79	82	70	68	69	69	63	68	71	69	70
2	83	79	81	71	69	70	71	68	69	70	69	70
3	83	79	82	72	69	71	71	70	71	71	70	70
4	83	79	82	73	71	72	73	68	71	70	68	69
5	81	79	80	74	72	73	68	65	66	70	67	68
6	82	79	80	73	71	72	66	62	64	70	68	69
7	79	78	79	74	73	73	63	61	62	70	68	69
8	80	77	79	74	72	73	65	61	63	69	66	68
9	82	78	80	79	71	73	65	63	64	69	67	68
10	81	78	80	78	75	76	68	61	65	68	61	66
11	82	79	80	77	74	75	69	67	68	66	61	64
12	80	76	78	78	76	77	69	68	69	68	61	65
13	76	74	75	78	73	76	73	69	71	68	66	67
14	74	73	74	74	70	71	73	70	72	68	66	67
15	74	70	72	72	70	71	70	69	70	69	67	68
16	72	70	71	70	67	69	70	68	68	70	68	69
17	70	68	69	70	67	69	72	69	71	70	69	69
18	70	67	68	69	65	67	72	69	71	71	69	70
19	73	70	71	68	66	68	70	68	69	76	70	73
20	73	71	73	72	68	70	71	68	70	77	72	74
21	75	73	75	74	70	72	70	68	69	74	72	73
22	77	75	76	74	72	73	71	68	70	74	71	72
23	78	71	76	73	70	71	69	68	68	74	72	73
24	74	67	71	73	70	72	69	68	68	74	71	72
25	73	72	73	74	70	72	70	68	69	75	71	72
26	74	72	73	74	70	72	71	69	70	75	72	74
27	74	71	73	74	72	73	70	68	69	75	72	73
28	72	67	69	74	71	72	72	69	70	74	72	73
29	70	68	70	72	62	67	73	69	70	74	69	72
30	---	---	---	68	62	66	73	69	71	68	56	59
31	---	---	---	67	62	66	---	---	---	56	53	54
MONTH	83	67	76	79	62	71	73	61	69	77	53	69

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	56	54	55	72	61	68	81	74	78	83	74	79
2	56	55	56	61	54	55	86	73	79	83	75	78
3	62	57	58	57	55	56	80	73	76	86	81	83
4	67	61	64	59	56	58	76	75	76	81	74	77
5	67	63	65	61	59	60	78	76	77	74	72	73
6	68	64	66	63	61	62	77	75	76	75	72	74
7	68	65	67	64	61	62	77	74	76	73	72	72
8	70	67	68	63	59	62	77	72	74	74	71	73
9	73	69	70	60	57	58	75	73	74	73	71	72
10	73	70	72	58	57	57	79	76	77	76	74	75
11	76	73	74	59	57	58	80	77	78	74	72	73
12	77	73	75	59	57	58	79	71	75	74	71	73
13	78	74	75	58	57	58	74	71	73	74	73	74
14	79	74	76	60	57	58	74	72	73	75	74	75
15	74	69	70	64	59	61	73	71	72	76	73	74
16	76	71	72	66	64	65	73	71	72	73	71	72
17	75	72	73	65	62	63	74	71	73	72	71	71
18	73	66	68	65	59	62	76	73	74	73	69	71
19	70	65	67	61	58	59	75	72	73	81	71	74
20	69	67	68	58	56	57	85	73	76	73	70	72
21	70	68	69	58	57	57	79	72	75	75	72	74
22	74	69	71	60	58	59	81	73	77	79	74	77
23	74	71	73	61	59	60	79	75	77	77	73	75
24	74	71	72	63	60	61	80	74	77	75	71	73
25	76	71	73	65	61	64	83	75	78	90	73	77
26	73	71	72	68	65	66	82	75	78	76	74	75
27	72	70	71	71	69	70	86	76	81	76	75	75
28	73	71	72	72	69	71	90	84	88	87	72	74
29	74	72	73	72	70	71	93	88	91	111	73	84
30	75	71	73	73	71	72	95	92	94	74	72	73
31	---	---	---	76	71	73	98	85	94	---	---	---
MONTH	79	54	69	76	54	62	98	71	78	111	69	75
YEAR	151	53	74									

01412000 MENANTICO CREEK NEAR MILLVILLE, NJ

LOCATION.--Lat 39°25'12", long 74°58'00", Cumberland County, Hydrologic Unit 02040206, on right bank at upstream side of Mays Landing Road (State Route 552), 0.9 mi downstream of Menantico Lake, 4.0 mi northeast of Millville, and 7.0 mi upstream from mouth.

DRAINAGE AREA.--23.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1931 to September 1957, October 1977 to February 1985 (discontinued, converted to crest-stage gage Mar. 5, 1985). Published as "Manantico Creek" prior to October 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 36.63 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for October 1, 1984 to March 5, 1985, which are fair, and those for summer months, which are poor. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--33 years (water years 1932-57, 1978-84), 37.5 ft^3/s, 22.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s Aug. 20, 1939, gage height, 6.21 ft, from rating curve extended above 300 ft^3/s; minimum, 1.4 ft^3/s Aug. 16-18, 1936.

EXTREMES FOR CURRENT PERIOD.--Water year 1984: Peak discharges above base of 125 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 15	0015	150	2.77	Apr. 6	0615	174	2.99
Mar. 30	0930	148	2.75	May 31	1300	*247	3.44

Minimum daily discharge, 9.0 ft^3/s Oct. 20.

OCTOBER 1984 TO FEBRUARY 1985: Maximum discharge during period, 87 ft^3/s Feb. 13, gage height, 1.86 ft: minimum, 16 ft^3/s Jan. 16, Feb. 8, gage height 0.85 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	20	38	42	40	74	77	61	207	35	26	16
2	14	20	37	39	37	59	66	54	136	35	15	15
3	47	19	36	39	36	52	61	50	96	32	26	15
4	29	22	46	38	42	48	61	53	79	30	30	32
5	21	24	64	38	43	48	117	58	69	29	27	43
6	18	22	60	38	41	65	163	58	60	30	24	32
7	16	21	57	38	37	70	114	53	55	43	23	25
8	15	20	51	37	35	61	81	52	52	97	20	22
9	14	20	44	36	34	56	68	67	48	87	18	21
10	14	24	41	36	34	53	63	71	45	53	18	19
11	14	37	38	52	35	50	60	58	42	50	20	18
12	21	39	41	51	36	50	58	50	40	65	32	18
13	30	34	54	43	36	56	55	46	37	62	46	18
14	30	29	65	39	36	116	58	43	40	47	37	18
15	25	33	61	37	56	127	65	40	39	40	25	27
16	22	71	54	36	80	83	83	39	37	36	17	25
17	20	77	45	34	67	67	91	37	38	53	19	23
18	19	55	41	34	55	60	75	36	67	74	22	20
19	16	41	39	35	49	56	68	37	88	84	20	19
20	9.0	36	37	34	45	54	62	37	71	63	21	18
21	15	57	36	33	42	53	57	38	53	48	20	17
22	17	66	48	31	40	54	53	38	46	45	19	16
23	19	52	68	31	42	51	61	36	42	43	18	16
24	38	44	60	35	73	49	75	45	40	39	18	16
25	41	67	47	62	81	51	69	44	44	36	17	16
26	33	87	40	75	62	63	60	37	41	32	16	16
27	27	70	36	65	51	62	53	38	37	32	16	16
28	23	51	43	54	53	62	50	36	36	33	15	17
29	22	44	71	45	87	102	61	36	35	32	18	22
30	21	41	71	41	---	141	66	100	34	33	18	22
31	20	---	52	42	---	105	---	219	---	29	17	---
TOTAL	680.0	1243	1521	1290	1415	2098	2151	1667	1754	1447	678	618
MEAN	21.9	41.4	49.1	41.6	48.8	67.7	71.7	53.8	58.5	46.7	21.9	20.6
MAX	47	87	71	75	87	141	163	219	207	97	46	43
MIN	9.0	19	36	31	34	48	50	36	34	29	15	15
CFSM	.94	1.78	2.12	1.79	2.10	2.92	3.09	2.32	2.52	2.01	.94	.89
IN.	1.09	1.99	2.44	2.07	2.27	3.36	3.45	2.67	2.81	2.32	1.09	.99

CAL YR 1983 TOTAL 14087.6 MEAN 38.6 MAX 187 MIN 7.9 CFSM 1.66 IN. 22.59
WTR YR 1984 TOTAL 16562.0 MEAN 45.3 MAX 219 MIN 9.0 CFSM 1.95 IN. 26.56

01412000 MENANTICO CREEK NEAR MILLVILLE, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	22	25	20	21							
2	37	21	23	21	38							
3	36	20	24	22	45							
4	29	20	24	24	35							
5	25	26	23	26	28							
6	24	30	36	27	27							
7	22	26	44	25	26							
8	21	23	33	24	23							
9	21	22	28	22	22							
10	20	22	26	21	22							
11	19	25	25	21	21							
12	19	38	24	20	29							
13	19	36	24	20	76							
14	18	28	23	20	64							
15	18	25	22	20	41							
16	18	24	22	19	33							
17	18	23	22	20	29							
18	18	23	22	20	27							
19	18	27	22	20	26							
20	18	31	21	19	25							
21	18	28	21	18	24							
22	18	25	23	18	24							
23	19	24	23	18	24							
24	20	23	22	18	24							
25	22	23	22	18	24							
26	22	22	21	19	23							
27	22	22	21	18	23							
28	21	21	21	18	22							
29	22	26	21	18	---							
30	24	28	20	18	---							
31	23	---	20	18	---							
TOTAL	673	754	748	630	846							
MEAN	21.7	25.1	24.1	20.3	30.2							
MAX	37	38	44	27	76							
MIN	18	20	20	18	21							
CFSM	.94	1.08	1.04	.87	1.30							
IN.	1.08	1.21	1.20	1.01	1.36							

CAL YR 1984 TOTAL 15293 MEAN 41.8 MAX 219 MIN 15 CFSM 1.80 IN. 24.52

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth.

DRAINAGE AREA.--28.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 26.9 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair prior to May 4 and poor thereafter. Flow diverted above gage during summer months for irrigation.

AVERAGE DISCHARGE.--7 years, 39.4 ft^3/s, 19.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft^3/s June 21, 1983, includes discharge from dam break at Seeley Lake 1.3 mi upstream, gage height, 8.50 ft, from rating curve extended above 600 ft^3/s on basis of step-backwater computation of peak flow; minimum, 13 ft^3/s Sept. 13, 1981, gage height, 2.71 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 28	2330	293	5.08	May 30	1015	328	5.17
Jan. 25	2045	*399	5.35	July 19	0245	293	5.08
Apr. 5	1530	293	5.08				

Minimum daily discharge, 21 ft^3/s Sept. 10, 11, 12, 13, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	27	35	37	39	40	48	56	52	70	31	25
2	29	28	34	37	34	37	47	53	33	48	31	25
3	28	29	35	38	35	37	48	53	30	40	32	27
4	27	35	79	38	47	36	52	61	29	34	32	67
5	26	32	81	39	43	42	217	54	29	33	53	33
6	25	30	53	40	36	51	122	47	30	41	47	25
7	24	30	49	39	34	42	64	48	31	52	32	22
8	24	30	39	37	32	38	55	63	29	80	29	22
9	24	29	36	36	31	42	52	135	28	41	27	22
10	24	40	36	39	31	38	51	63	27	36	31	21
11	25	56	36	72	35	39	51	42	26	38	38	21
12	38	46	52	42	35	39	49	40	25	52	53	21
13	40	36	89	36	33	59	49	39	24	39	93	21
14	43	33	84	36	35	148	51	38	49	33	42	25
15	32	48	53	37	65	74	54	37	31	32	32	133
16	29	121	44	35	60	50	70	37	29	31	30	32
17	27	63	40	34	43	46	67	37	31	50	29	24
18	28	39	38	36	41	44	57	36	73	92	28	23
19	29	34	39	37	37	43	54	38	70	184	30	23
20	29	33	36	34	36	43	52	38	39	48	32	23
21	27	128	35	33	34	49	51	40	33	51	28	22
22	26	72	70	31	33	48	49	37	31	106	27	21
23	36	40	70	32	40	44	67	36	31	51	28	22
24	67	44	47	40	111	42	65	42	35	38	28	22
25	43	93	31	225	56	48	58	34	52	34	26	23
26	34	85	37	236	40	58	54	31	39	32	26	23
27	31	46	35	92	37	47	52	36	36	33	26	23
28	29	40	86	53	52	63	51	32	35	33	26	31
29	28	40	192	41	49	122	64	51	34	33	29	34
30	27	36	58	39	---	90	58	241	39	33	29	28
31	27	---	40	55	---	55	---	114	---	33	27	---
TOTAL	954	1443	1689	1656	1234	1654	1879	1709	1080	1551	1052	884
MEAN	30.8	48.1	54.5	53.4	42.6	53.4	62.6	55.1	36.0	50.0	33.9	29.5
MAX	67	128	192	236	111	148	217	241	73	184	93	133
MIN	24	27	31	31	31	36	47	31	24	31	26	21
CFSM	1.10	1.72	1.95	1.91	1.52	1.91	2.24	1.97	1.29	1.79	1.21	1.05
IN.	1.27	1.92	2.24	2.20	1.64	2.20	2.50	2.27	1.43	2.06	1.40	1.17

CAL YR 1983 TOTAL 17317 MEAN 47.4 MAX 2150 MIN 16 CFSM 1.69 IN. 23.01
WTR YR 1984 TOTAL 16785 MEAN 45.9 MAX 241 MIN 21 CFSM 1.64 IN. 22.30

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 20...	1100	29	220	6.8	13.0	8.7	--	<.4	130	350
JAN 24...	1220	35	235	7.5	4.0	13.2	--	E1.1	20	130
APR 03...	1100	49	198	6.6	11.0	11.2	--	E1.4	20	21
MAY 16...	1300	37	205	6.7	14.0	9.8	--	E1.6	330	46
JUL 11...	1250	37	195	6.6	21.0	7.9	--	E1.6	330	920
AUG 07...	1300	32	192	6.7	23.5	7.4	87	E1.9	1300	>2400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 20...	64	13	7.7	12	5.1	19	25	30	<.10
JAN 24...	61	12	7.6	11	5.1	11	25	26	<.10
APR 03...	53	11	6.2	9.0	3.7	10	25	20	<.10
MAY 16...	58	12	6.7	9.7	4.1	14	23	23	.10
JUL 11...	53	11	6.2	9.4	4.1	15	20	23	.20
AUG 07...	55	11	6.6	9.5	4.4	16	20	23	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 20...	5.8	125	.037	3.9	.180	.41	4.3	.060	4.1
JAN 24...	8.7	144	.027	5.5	.150	.12	5.6	.160	3.2
APR 03...	6.0	102	.024	4.1	.100	E.48	--	.090	3.5
MAY 16...	7.1	166	.050	4.3	.160	.86	5.1	.180	4.1
JUL 11...	7.3	149	.031	3.4	.110	.92	4.3	.150	4.6
AUG 07...	7.3	154	.020	3.7	.060	.62	4.3	.100	3.8

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
20...	1100	<.5	50	1	10	50	1	10	3
MAY									
16...	1300	<.5	10	1	<10	20	<1	20	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
20...	360	8	50	<.1	4	<1	10	5
MAY								
16...	2300	5	150	<.1	4	<1	20	<1

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, PA, Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, NY and Matamoras, PA, 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORD.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Water-discharge records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84,400 ft³/s May 30, gage height, 14.04 ft; minimum, 759 ft³/s Oct. 16, gage height, 1.71 ft; minimum daily, 1,120 ft³/s Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	1560	5750	4090	1700	5900	4700	6050	35500	8410	2530	1540
2	1620	1580	4660	3490	1600	5190	5430	5230	22900	14400	2970	1540
3	1480	1580	3760	3420	1700	4690	6290	4760	17500	8380	2730	1590
4	1290	1580	3370	3430	1600	4120	7890	9490	14500	5560	2620	1740
5	1510	1580	3620	3040	2000	4270	28300	13300	11200	4570	2110	1770
6	1640	1580	4130	2960	2900	4370	52300	11500	9060	4600	2310	1600
7	1710	1640	11000	2610	3420	4670	31500	10400	7780	8450	2740	1640
8	1580	1610	12300	2100	3350	3990	21400	8970	6760	7780	2730	1540
9	1540	1530	8490	2400	2610	3690	16100	10500	5480	6080	2830	1580
10	1540	1530	6450	2500	2740	3230	13200	10600	4240	5160	2200	1520
11	1570	1730	4980	2700	2080	2760	11400	9260	4090	4640	2030	1490
12	1830	1500	4730	2500	2180	2830	10000	7760	4310	4480	1650	1510
13	1660	1780	17100	3000	3030	3270	8880	8050	3980	4360	1880	1490
14	1510	1590	56900	2600	5600	3320	8020	8870	4110	3970	2180	1730
15	1130	1430	34400	2200	34500	3430	8780	10300	3940	3330	1920	1730
16	1120	1460	19800	2200	42500	4080	13200	9850	3360	3240	1840	1770
17	1280	1440	13500	2500	23000	4760	22700	8700	2440	3420	2230	1580
18	1370	1280	10600	2400	15600	4110	19700	7800	2650	3650	1990	1450
19	1740	1680	8850	2400	12700	4550	16800	6640	3110	4120	1690	1710
20	1710	1610	7180	2500	12800	4890	17300	5830	2860	3880	1710	1660
21	1670	1730	6510	2100	11400	5710	15100	6280	1890	3020	1840	1610
22	1760	2610	5550	1900	9320	8410	12500	6570	1630	1820	1970	1670
23	1640	2610	5880	1900	7960	8320	11500	5800	1550	2060	1750	1620
24	1730	2050	5890	1900	8390	6600	11200	6960	1720	3010	1800	1540
25	1690	2850	5390	2200	8150	5480	10600	6680	1840	2620	1770	1690
26	1530	5550	4590	2200	7150	5750	9740	5700	1890	2230	1490	1720
27	1610	4850	4320	2900	6410	5590	8690	5430	1640	2340	1560	1690
28	1510	4340	3960	2800	6170	5480	7300	4830	1420	3100	1700	1490
29	1460	5370	4430	2100	6490	6010	5940	39900	1490	2940	1800	1520
30	1460	7320	5560	1600	---	5980	5870	75300	4460	2500	1750	1560
31	1450	---	5150	1400	---	5170	---	55400	---	2780	2040	---
TOTAL	47930	70550	298800	78040	249050	150620	422330	392710	189300	140900	64360	48290
MEAN	1546	2352	9639	2517	8588	4859	14080	12670	6310	4545	2076	1610
MAX	1830	7320	56900	4090	42500	8410	52300	75300	35500	14400	2970	1770
MIN	1120	1280	3370	1400	1600	2760	4700	4760	1420	1820	1490	1450

CAL YR 1983 TOTAL 1952960 MEAN 5351 MAX 56900 MIN 1020
WTR YR 1984 TOTAL 2152880 MEAN 5882 MAX 75300 MIN 1120

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59(e), 1964-65(c), 1966(a), 1967-68(c), 1969-76(d).
MINOR ELEMENTS DATA: 1970(a), 1972-73(a), 1974-76(c).
PESTICIDE DATA: 1974(a).
ORGANIC DATA: OC--1974(b), 1975(d).
NUTRIENT DATA: 1968(a), 1969-76(d).
BIOLOGICAL DATA:
Bacteria--1973-76(d).
Phytoplankton--1974(b), 1975-76(c).
Periphyton--1976(a).
SEDIMENT DATA: 1959(c), 1976(c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Sept. 24-30, due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-84), freezing point on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 15-17; minimum, 1.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	16.0	16.5	7.5	6.5	7.0	5.0	4.0	4.5	1.0	1.0	1.0
2	18.0	16.5	17.5	8.0	7.0	7.5	4.0	3.5	4.0	1.0	1.0	1.0
3	19.0	17.0	18.0	8.5	8.0	8.0	4.0	3.5	3.5	1.0	1.0	1.0
4	19.0	17.5	18.5	8.5	7.5	8.0	3.0	3.0	3.0	1.5	1.0	1.0
5	20.0	18.5	19.5	7.5	6.5	7.0	3.5	3.0	3.5	1.5	1.5	1.5
6	19.5	18.5	19.0	7.0	6.0	6.5	4.5	3.5	4.0	2.0	1.5	1.5
7	18.0	17.0	17.5	8.0	6.5	7.5	4.5	4.0	4.0	1.5	1.0	1.5
8	17.0	15.5	16.5	8.0	6.5	7.5	4.0	3.0	3.5	1.0	1.0	1.0
9	16.5	15.5	16.0	8.0	7.0	7.5	3.0	2.5	2.5	1.0	1.0	1.0
10	15.5	14.5	15.0	8.0	7.0	7.5	3.5	2.5	3.0	1.5	1.0	1.0
11	15.0	14.0	14.0	8.5	8.0	8.5	3.0	2.5	3.0	1.0	1.0	1.0
12	15.0	14.0	14.5	8.5	6.0	7.0	3.0	2.5	2.5	1.0	1.0	1.0
13	16.0	15.0	15.5	5.5	4.5	5.0	4.5	3.0	4.0	1.0	1.0	1.0
14	16.5	15.5	16.0	5.5	4.5	5.0	5.5	4.5	5.5	1.0	1.0	1.0
15	15.5	14.0	14.5	5.5	5.0	5.0	6.0	5.5	6.0	1.0	1.0	1.0
16	14.5	13.0	14.0	6.0	5.0	5.5	6.0	5.5	6.0	1.0	1.0	1.0
17	13.5	13.0	13.5	6.0	5.0	5.5	5.5	4.0	5.0	1.0	1.0	1.0
18	13.5	13.0	13.5	5.0	4.5	4.5	4.0	3.0	3.5	1.0	1.0	1.0
19	14.0	13.0	13.5	6.0	4.5	5.0	3.0	1.5	2.5	1.0	1.0	1.0
20	13.5	12.5	13.0	7.5	5.5	6.5	1.5	1.0	1.0	1.0	1.0	1.0
21	12.5	11.0	12.0	8.5	8.0	8.0	1.0	1.0	1.0	1.0	1.0	1.0
22	11.5	10.5	11.0	8.5	7.5	8.0	1.5	1.0	1.0	1.0	1.0	1.0
23	11.0	10.5	10.5	8.0	7.5	8.0	1.5	1.0	1.0	1.0	1.0	1.0
24	11.5	10.5	11.0	8.5	7.5	8.0	1.0	1.0	1.0	1.0	1.0	1.0
25	11.0	10.0	10.5	8.5	6.0	7.0	1.0	1.0	1.0	1.0	1.0	1.0
26	10.5	10.0	10.0	6.0	5.5	5.5	1.0	1.0	1.0	1.0	1.0	1.0
27	10.0	9.0	9.5	5.5	5.0	5.5	1.0	1.0	1.0	1.0	1.0	1.0
28	10.0	8.0	9.0	5.5	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
29	10.0	8.5	9.5	5.5	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
30	8.5	7.5	8.0	5.0	4.5	4.5	1.0	1.0	1.0	1.0	1.0	1.0
31	8.0	7.0	7.5	---	---	---	1.0	1.0	1.0	1.0	1.0	1.0
MONTH	20.0	7.0	13.5	8.5	4.5	6.5	6.0	1.0	3.0	2.0	1.0	1.0

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	2.5	1.5	2.0	6.5	4.5	5.5	14.0	13.0	13.5
2	1.0	1.0	1.0	2.0	1.0	1.5	7.0	5.5	6.5	14.0	12.5	13.5
3	1.0	1.0	1.0	2.5	1.0	2.0	8.0	6.5	7.0	13.5	12.5	12.5
4	1.5	1.0	1.0	3.0	1.0	2.0	7.5	6.5	7.0	12.5	11.5	12.0
5	1.0	1.0	1.0	2.0	1.5	2.0	6.5	6.0	6.5	12.0	11.0	11.5
6	1.0	1.0	1.0	3.5	1.5	2.5	6.5	6.0	6.0	12.5	11.0	12.0
7	1.0	1.0	1.0	3.5	2.0	3.0	6.0	5.5	5.5	13.0	12.0	12.5
8	1.0	1.0	1.0	2.5	1.0	2.0	6.5	5.0	5.5	13.0	12.5	13.0
9	1.0	1.0	1.0	2.5	1.0	1.5	7.5	6.0	6.5	13.0	12.5	12.5
10	1.5	1.0	1.0	2.5	1.0	1.5	7.5	6.5	7.0	12.5	11.5	12.0
11	1.5	1.0	1.5	2.5	1.0	1.5	8.5	7.0	7.5	12.5	11.5	12.0
12	2.0	1.0	1.5	2.0	1.0	1.5	9.5	8.0	9.0	13.0	12.0	12.5
13	2.0	1.0	1.5	1.5	1.0	1.0	9.5	9.0	9.5	14.0	12.0	13.0
14	1.5	1.0	1.5	3.0	1.0	1.5	9.0	8.0	8.5	13.5	12.5	13.0
15	1.5	1.0	1.0	4.0	1.5	3.0	8.0	7.5	7.5	12.5	11.0	11.5
16	4.0	1.5	3.0	4.0	3.0	3.5	7.5	7.5	7.5	11.5	10.5	11.0
17	5.0	4.0	4.5	4.5	3.5	3.5	8.5	7.5	8.0	11.5	10.0	10.5
18	5.0	4.5	5.0	4.5	3.5	4.0	9.5	8.5	8.5	11.0	10.5	11.0
19	5.0	4.5	4.5	5.5	3.5	4.5	9.5	9.0	9.0	12.5	11.0	11.5
20	5.0	4.5	5.0	6.0	4.5	5.0	9.0	8.0	8.5	13.5	12.5	13.0
21	4.5	4.0	4.5	6.0	5.0	5.5	9.0	8.0	8.5	15.0	13.0	14.0
22	4.5	3.5	4.0	5.5	5.0	5.0	9.0	8.0	8.5	17.5	14.0	15.5
23	4.5	3.5	4.0	5.0	4.5	4.5	9.0	8.0	8.5	18.5	17.0	18.0
24	5.5	4.5	5.0	5.5	4.0	4.5	8.0	8.0	8.0	18.5	16.5	17.5
25	5.5	5.0	5.5	5.5	4.5	5.0	8.5	8.0	8.0	19.0	16.5	18.0
26	5.0	4.0	4.0	6.5	5.0	5.5	10.5	8.0	9.0	20.0	17.5	18.5
27	4.0	3.0	3.5	7.0	5.0	6.0	12.0	9.5	11.0	20.0	18.0	19.0
28	3.0	2.5	3.0	6.5	5.0	6.0	13.0	11.5	12.0	19.0	17.0	18.0
29	3.5	2.0	3.0	5.0	2.5	3.5	15.0	12.5	13.5	16.5	13.5	15.0
30	---	---	---	4.0	2.5	3.5	14.5	14.0	14.5	13.5	13.0	13.5
31	---	---	---	5.5	3.5	4.5	---	---	---	13.5	13.0	13.0
MONTH	5.5	1.0	2.5	7.0	1.0	3.5	15.0	4.5	8.5	20.0	10.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	20.5	19.5	20.5	25.5	22.5	24.0	24.0	22.5	23.0
2	15.5	13.5	14.5	21.0	19.0	20.0	25.5	24.0	24.5	22.5	21.5	22.0
3	15.5	14.5	15.0	22.0	20.0	21.0	25.5	24.0	25.0	23.0	21.5	22.0
4	15.5	14.0	15.0	23.0	20.5	22.0	26.5	24.5	25.0	22.5	21.5	22.0
5	17.5	15.5	16.5	24.0	22.5	23.0	26.0	25.0	25.5	21.5	19.5	20.5
6	18.5	17.0	18.0	23.0	22.0	22.5	26.5	24.0	25.5	20.0	18.5	19.0
7	21.0	18.0	19.5	22.0	20.5	21.0	26.0	24.5	25.5	19.5	17.5	18.5
8	22.5	19.5	21.0	21.0	20.0	20.5	27.0	24.0	25.5	20.0	17.5	19.0
9	25.0	20.5	22.0	20.5	19.5	20.0	26.5	25.0	25.5	20.5	18.5	19.5
10	25.5	23.0	24.0	20.5	19.5	20.0	25.5	24.5	25.0	20.5	19.0	20.0
11	26.5	24.0	25.5	22.0	20.0	21.0	25.0	23.5	24.0	21.5	19.5	20.5
12	25.0	22.5	24.0	24.5	20.5	22.5	25.0	24.0	24.5	22.0	20.5	21.5
13	24.5	23.0	23.5	24.5	22.5	23.5	26.5	24.5	25.5	22.0	20.5	21.5
14	23.5	22.0	23.0	25.0	23.0	24.0	27.0	25.0	26.0	21.5	20.5	21.0
15	22.5	20.5	21.5	26.0	23.5	25.0	27.5	25.0	26.5	20.5	17.0	19.5
16	21.0	19.0	20.0	26.0	24.5	25.5	27.5	25.0	26.5	19.0	16.5	17.5
17	20.0	19.5	19.5	26.0	24.0	25.0	27.5	24.5	26.0	18.0	16.5	17.5
18	20.0	19.0	19.5	24.5	23.0	23.5	26.0	23.5	25.0	18.0	16.5	17.5
19	22.5	19.0	21.0	23.5	22.0	23.0	24.0	23.0	23.0	18.5	17.0	18.0
20	24.0	21.5	22.5	24.0	22.0	23.0	23.5	22.0	22.5	20.0	18.0	19.0
21	24.5	21.0	23.0	23.0	22.0	22.5	23.5	20.5	22.5	20.0	18.0	19.0
22	25.0	22.0	23.5	25.0	21.5	23.0	24.0	21.0	22.5	20.5	18.5	19.5
23	24.5	22.5	23.5	26.0	23.5	24.5	24.0	22.0	23.0	21.5	20.0	20.5
24	24.0	22.0	22.5	25.5	24.5	25.0	23.5	21.5	22.5	---	---	---
25	24.0	21.0	22.5	25.5	23.5	24.5	23.5	21.0	22.5	---	---	---
26	24.0	21.5	23.0	24.5	22.5	23.5	24.0	21.5	23.0	---	---	---
27	24.5	21.5	23.0	24.0	21.0	22.5	23.5	22.0	23.0	---	---	---
28	25.0	23.0	24.5	21.5	20.0	20.5	24.5	21.5	23.0	---	---	---
29	26.0	24.0	25.0	23.5	21.0	22.0	24.5	23.0	24.0	---	---	---
30	25.0	21.0	23.0	24.0	21.5	22.5	25.5	23.0	24.5	---	---	---
31	---	---	---	24.5	22.0	23.0	25.5	24.0	25.0	---	---	---
MONTH	26.5	13.0	21.0	26.0	19.0	22.5	27.5	20.5	24.5	24.0	16.5	20.0

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, NY, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1903, July 1937 to current year. Gage heights and discharge measurements, August 1909 to April 1914. Twice-daily figures of discharge, January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORD.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS.--Water-discharge records fair except those for winter periods, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 91.8 mi² of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft³/s on basis of slope-area measurment of peak flow; practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,800 ft³/s Apr. 5, gage height, 10.00 ft; minimum, 75 ft³/s Sept. 8, 9, 26; minimum gage height, 3.04 ft Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	126	523	350	200	654	607	460	3540	1030	192	113
2	128	151	453	340	190	577	706	423	2520	1120	197	109
3	128	150	408	320	220	520	818	412	1890	740	207	96
4	108	146	394	342	286	470	930	1390	1520	778	215	105
5	103	161	387	347	351	465	6360	1180	1030	566	222	94
6	113	141	433	341	325	509	5360	944	784	517	218	88
7	108	123	1130	324	295	497	3390	808	658	2040	211	82
8	102	117	726	280	280	420	2420	769	557	1320	207	79
9	99	113	586	270	260	400	1820	883	496	967	198	77
10	98	112	517	294	258	370	1410	722	449	798	184	82
11	97	192	462	270	263	350	1170	640	404	658	204	83
12	107	386	441	260	337	330	950	591	361	576	220	87
13	121	249	1810	250	438	310	824	581	339	482	216	82
14	123	177	2990	240	627	340	739	582	364	418	205	80
15	116	162	1940	230	2390	400	804	537	341	382	189	85
16	107	264	1460	230	2390	452	1590	494	314	359	182	89
17	101	278	1190	220	1650	520	2210	455	319	333	190	83
18	105	213	986	220	1340	565	2340	420	325	395	178	81
19	176	199	840	210	1220	540	1980	399	299	383	158	80
20	153	181	690	200	1510	603	1560	385	260	320	142	80
21	128	381	617	190	1190	779	1340	429	238	295	134	79
22	120	359	576	190	974	1170	1080	390	219	285	121	82
23	120	271	569	190	828	977	862	380	207	265	124	80
24	229	259	526	230	1030	854	795	631	216	256	120	79
25	214	668	490	260	990	769	735	460	306	239	112	79
26	175	620	480	288	875	699	679	422	244	217	108	82
27	177	541	450	268	729	623	609	499	212	229	104	87
28	158	476	420	261	722	601	553	547	198	276	102	88
29	140	653	529	245	771	639	522	3550	197	239	101	88
30	141	639	450	234	---	615	487	6810	560	218	101	86
31	137	---	400	220	---	575	---	5460	---	206	102	---
TOTAL	4053	8508	23873	8114	22939	17593	45650	32653	19367	16907	5164	2585
MEAN	131	284	770	262	791	568	1522	1053	646	545	167	86.2
MAX	229	668	2990	350	2390	1170	6360	6810	3540	2040	222	113
MIN	97	112	387	190	190	310	487	380	197	206	101	77

CAL YR 1983 TOTAL 193534 MEAN 530 MAX 5070 MIN 89
WTR YR 1984 TOTAL 207406 MEAN 567 MAX 6810 MIN 77

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, N.J. and Milford, Pa. 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Water-discharge records excellent except those for winter months, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--45 years, 5,850 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft^3/s Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft^3/s on basis of flood-routing study; minimum, 382 ft^3/s Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft^3/s Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89,500 ft^3/s May 30, gage height, 20.75 ft; minimum discharge, 936 ft^3/s Oct. 16, gage height, 4.33 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	1670	6950	4700	1700	7370	5800	7060	40200	8650	2820	1890
2	1770	1720	5630	4000	1900	6400	6570	6100	26500	15700	3180	1670
3	1660	1730	4550	3800	1900	5720	7790	5590	20300	9560	2990	1740
4	1490	1740	4080	3900	2000	5080	9670	11200	16400	6850	3030	1940
5	1610	1730	4150	3600	2400	5110	34100	16000	12600	5290	2400	2050
6	1750	1730	4850	3500	3200	5270	64300	13400	10300	5290	2410	1840
7	1890	1780	11400	3300	3700	5570	40300	11900	8930	9990	3010	1790
8	1740	1740	13500	2600	3700	4830	27600	10500	7780	9460	2970	1710
9	1690	1650	9650	2600	3100	4420	20500	12000	6530	7390	3080	1740
10	1680	1660	7690	3000	3100	3870	16200	12100	5020	6250	2590	1700
11	1710	1890	6010	3100	2700	3400	13700	10600	4580	5630	2550	1660
12	1980	1980	5390	3000	2600	3260	12000	9150	4940	5100	1990	1670
13	1890	2020	16400	3300	3300	3860	10700	9220	4430	5010	2160	1700
14	1750	1880	57100	3200	6000	4050	9660	9940	4620	4520	2490	1800
15	1420	1620	38600	2600	30000	4090	10200	11400	4420	3820	2250	1920
16	1190	1760	22900	2400	50600	4820	15200	10900	3940	3630	2130	1930
17	1450	1850	15300	2900	28900	5650	27600	9740	2850	3830	2590	1730
18	1480	1550	12000	2700	19500	5120	25100	8810	2890	4120	2290	1650
19	1890	1890	10200	2700	15300	5470	21100	7580	3640	4580	1940	1810
20	1920	1860	8410	2700	15500	5930	21100	6580	3290	4310	1960	1790
21	1830	2050	7230	2600	13800	6920	18400	6940	2250	3640	2060	1760
22	1920	2980	6300	2200	11300	10400	14800	7460	1930	2230	2180	1790
23	1830	3070	6700	1900	9770	10300	13100	6440	1790	2260	2060	1770
24	2030	2430	6700	2200	10200	8490	12900	8010	1970	3320	1970	1700
25	2020	3440	6000	2300	10200	6900	12200	7680	2210	3080	2040	1850
26	1760	6560	5200	2700	8970	6870	11300	6490	2230	2730	1700	1910
27	1820	5890	4800	2900	7970	6780	10100	6250	1940	2750	1720	1860
28	1730	5190	4500	3300	7610	6590	8790	5520	1690	3410	1920	1640
29	1640	6280	5000	2400	8080	7230	7040	36500	1710	3300	1980	1670
30	1620	8380	6100	1900	---	7170	6720	82700	4400	2600	1930	1710
31	1620	---	5900	1800	---	6450	---	61900	---	3070	2150	---
TOTAL	53500	81720	329190	89800	289000	183390	514540	435660	216280	161370	72540	53390
MEAN	1726	2724	10620	2897	9966	5916	17150	14050	7209	5205	2340	1780
MAX	2030	8380	57100	4700	50600	10400	64300	82700	40200	15700	3180	2050
MIN	1190	1550	4080	1800	1700	3260	5800	5520	1690	2230	1700	1640

CAL YR 1983 TOTAL 2236530 MEAN 6127 MAX 57100 MIN 1090
WTR YR 1984 TOTAL 2480380 MEAN 6777 MAX 82700 MIN 1190

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi upstream from Flatbrookville, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M). WDR-NJ-80-2: 1970(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow occasionally regulated by ponds above station.

AVERAGE DISCHARGE.--61 years, 110 ft³/s, 23.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s Aug. 19, 1955, gage height, 12.58 ft, from high-water mark in gage house, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s Sept. 25, 26, 1964, Sept. 11, 1966, but may have been lower during period of ice effect, Feb. 2-11, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	1115	1280	4.92	May 4	1600	840	4.14
Feb. 16	0015	1110	4.61	May 30	0345	2280	6.45
Apr. 5	2400	*2390	6.60	July 18	2200	758	3.99
Apr. 16	2345	660	3.80				

Minimum discharge, 8.7 ft³/s Oct. 7, 9, 10, gage height, 1.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	17	180	134	57	210	227	128	532	225	58	42
2	13	16	142	116	55	173	267	118	380	224	54	30
3	13	16	126	112	67	155	312	115	297	104	53	26
4	12	16	147	109	136	140	369	574	255	158	56	41
5	11	16	192	105	147	141	1190	418	209	104	67	36
6	9.7	15	198	102	108	152	1550	283	179	185	69	29
7	9.2	15	334	98	90	156	658	233	160	430	56	25
8	9.0	14	237	83	79	132	455	260	139	317	52	23
9	9.7	14	183	83	90	129	361	377	124	172	45	22
10	9.0	15	159	80	70	122	307	273	110	129	42	21
11	9.4	40	137	82	76	120	269	231	99	111	104	21
12	11	67	134	69	109	107	238	207	89	104	79	20
13	14	46	600	76	128	109	210	192	82	84	63	18
14	15	36	1160	80	202	166	198	186	79	72	54	18
15	13	32	594	75	683	167	240	164	74	63	49	18
16	11	76	401	65	792	177	421	151	68	87	42	19
17	11	85	309	68	425	218	522	134	65	93	37	18
18	11	61	244	72	321	216	382	121	74	379	34	17
19	30	50	207	67	275	211	382	119	85	402	32	16
20	35	43	168	62	267	236	339	116	69	197	43	16
21	21	93	136	58	222	269	285	129	59	149	38	15
22	16	93	171	56	195	361	239	111	53	139	32	15
23	16	70	218	72	176	286	228	116	48	110	43	15
24	90	64	167	95	243	234	231	184	51	93	54	14
25	74	232	115	112	235	204	207	124	118	81	38	15
26	43	240	114	103	200	186	183	104	72	70	32	13
27	31	178	123	86	172	167	169	102	55	106	29	13
28	26	153	132	84	194	174	155	110	47	127	27	13
29	22	327	309	73	290	223	147	677	43	88	26	14
30	20	255	216	68	---	205	134	1960	117	73	27	14
31	18	---	168	69	---	200	---	1010	---	66	52	---
TOTAL	645.0	2395	7721	2614	6104	5746	10875	9027	3832	4742	1487	617
MEAN	20.8	79.8	249	84.3	210	185	363	291	128	153	48.0	20.6
MAX	90	327	1160	134	792	361	1550	1960	532	430	104	42
MIN	9.0	14	114	56	55	107	134	102	43	63	26	13
CFSM	.32	1.25	3.89	1.32	3.28	2.89	5.67	4.55	2.00	2.39	.75	.32
IN.	.37	1.39	4.49	1.52	3.55	3.34	6.32	5.25	2.23	2.76	.86	.36

CAL YR 1983 TOTAL 56890.2 MEAN 156 MAX 3600 MIN 9.0 CFSM 2.44 IN. 33.07
WTR YR 1984 TOTAL 55805.0 MEAN 152 MAX 1960 MIN 9.0 CFSM 2.38 IN. 32.44

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Highway 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. No gage-height record Jan. 21 to 26. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--20 years, 6,474 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s June 30, 1973, gage height, 23.82 ft; minimum daily, 580 ft^3/s July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97,300 ft^3/s May 30, gage height, 21.77 ft; minimum, 1,140 ft^3/s Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1840	1800	9210	6400	2200	9130	6920	7870	55800	8230	3390	2290
2	1890	1840	7360	5800	2200	7830	7190	7070	34600	17000	3460	1750
3	1920	1880	6060	5200	2380	7120	8620	6620	25100	12100	3590	1870
4	1770	1910	5390	5050	2800	6470	10400	11100	19900	8690	3450	2020
5	1590	1900	5360	4750	4000	5950	34100	19200	15400	6430	3080	2290
6	1810	1900	5900	4500	3850	6370	78900	15800	11500	6430	2980	2100
7	1980	1890	10200	4300	4200	6450	53800	13700	10000	9680	3500	1910
8	1920	1920	17100	3500	4100	6170	34500	12200	8760	11500	3400	1890
9	1830	1870	12300	3300	3800	5460	24400	13000	7600	9270	3510	1840
10	1780	1840	9950	3600	3550	5000	18800	13600	6410	7360	3300	1880
11	1800	1990	7930	3550	3750	4230	15700	12200	5470	6790	3030	1820
12	1960	2490	6690	3250	3170	3750	13500	10800	5400	5870	2440	1780
13	2140	2250	14900	3000	3500	4320	12000	9770	5210	6180	2360	1810
14	1960	2530	59600	3150	7320	4550	10800	10500	5150	5410	2750	1770
15	1790	2020	52800	2950	31000	4800	10700	11900	5080	4630	2680	2110
16	1360	2240	32900	2750	60500	5150	14500	11800	4660	4360	2370	1980
17	1470	2530	21700	2650	38500	6070	28000	10700	3560	4440	2660	1990
18	1550	2330	16100	3050	24300	6290	28000	9700	3330	5120	2650	1860
19	1850	2120	13300	3050	18400	6230	23600	8660	4080	5960	2230	1750
20	2250	2400	11100	2850	17400	6670	22700	7650	4020	5620	2220	2030
21	2110	2550	9260	2600	16400	7470	21000	7440	3010	4810	2300	1960
22	2000	3350	8490	2650	13500	10500	16900	8270	2510	3320	2330	1870
23	2080	3910	9900	2380	11600	11700	14300	7520	2240	2850	2440	1960
24	2480	3370	9000	2550	11300	10200	14200	8250	2290	3610	2230	1920
25	2660	3880	7300	3000	12400	8220	13300	8630	2970	3690	2360	1750
26	2280	7010	6100	3300	10900	7650	12400	7560	2810	3250	2000	1760
27	2040	7600	5750	3400	9620	7780	11200	7060	2540	3340	1870	1740
28	2050	6560	5850	3800	9080	7490	10100	6500	2210	3830	2120	1660
29	1910	7310	7700	3350	9450	8180	8140	28400	2000	3990	2110	1570
30	1830	9550	7350	2500	---	8190	7490	93200	2650	3410	2160	1530
31	1800	---	7000	2380	---	7740	---	79200	---	3600	2450	---
TOTAL	59700	96740	409550	108560	345170	213130	586160	485870	266260	190770	83420	56460
MEAN	1926	3225	13210	3502	11900	6875	19540	15670	8875	6154	2691	1882
MAX	2660	9550	59600	6400	60500	11700	78900	93200	55800	17000	3590	2290
MIN	1360	1800	5360	2380	2200	3750	6920	6500	2000	2850	1870	1530

CAL YR 1983 TOTAL 2736190 MEAN 7496 MAX 74100 MIN 1250
WTR YR 1984 TOTAL 2901790 MEAN 7928 MAX 93200 MIN 1360

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1045	1690	104	8.1	19.0	9.8	--	E2.2	<20	>2400
FEB 09...	1100	4910	92	7.2	1.5	14.4	--	E1.4	230	17
MAR 27...	1045	10300	76	7.8	5.0	13.0	--	3.1	<20	2
JUN 05...	1115	18300	76	7.3	15.0	10.1	101	E1.8	70	23
JUL 23...	1215	4410	79	7.5	22.0	8.3	96	E1.7	20	27
AUG 14...	1230	3500	91	7.9	24.5	7.6	91	E1.8	20	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	33	9.9	2.1	5.5	1.0	21	12	7.3	<.10
FEB 09...	30	8.7	1.9	6.8	.90	15	13	11	<.10
MAR 27...	22	6.6	1.3	4.5	.60	9.0	11	7.9	<.10
JUN 05...	20	6.1	1.2	2.8	.70	10	11	4.6	<.10
JUL 23...	28	8.7	1.6	3.7	.70	18	11	6.0	<.10
AUG 14...	30	9.3	1.7	4.2	.80	21	11	6.8	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	1.2	52	.006	.37	.160	.17	.54	.040	2.5
FEB 09...	3.3	68	.007	.50	.110	.30	.80	.050	1.7
MAR 27...	2.6	49	.004	.26	.050	.21	.47	.020	2.1
JUN 05...	2.8	--	.005	.29	<.050	.40	.69	.050	2.7
JUL 23...	2.7	56	.007	.24	<.050	.38	.62	.030	3.3
AUG 14...	2.4	58	.005	.32	.050	.33	.65	.040	2.5

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 05...	1115	<.5	60	<1	<10	<20	1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN 05...	20	14	50	<.1	4	<1	30	5

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi downstream from Dry Brook, and 3.4 mi north of Newton.

DRAINAGE AREA.--67.1 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 03...	1030	E16	600	8.2	16.5	9.4	--	E1.9	230	280
FEB 08...	1045	134	413	7.9	.0	14.2	--	E2.0	50	43
MAR 22...	1030	325	298	7.8	3.5	13.2	--	E1.8	140	46
MAY 17...	1045	124	374	8.3	10.0	11.7	104	2.4	230	17
JUL 24...	1145	118	429	8.0	20.5	8.4	96	--	1400	540
AUG 09...	1045	68	450	8.1	20.5	8.5	96	E1.5	1300	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 03...	230	56	21	29	2.6	176	40	51	.20
FEB 08...	150	38	13	25	1.9	107	32	46	<.10
MAR 22...	100	27	8.6	17	1.3	70	21	32	<.10
MAY 17...	140	36	12	18	1.3	98	22	34	.10
JUL 24...	150	38	13	17	1.4	123	19	29	.10
AUG 09...	170	45	15	21	1.5	149	22	38	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	7.8	337	.051	1.6	.100	.54	2.1	.240	4.6
FEB 08...	6.0	254	.016	1.2	.460	.96	2.1	.100	4.3
MAR 22...	4.4	170	.010	.89	.110	.66	1.6	.060	4.4
MAY 17...	4.1	242	.031	.96	.100	.81	1.8	.080	3.8
JUL 24...	6.3	252	.053	.97	<.050	.56	1.5	.090	5.9
AUG 09...	6.1	281	.013	1.0	<.050	.42	1.5	.100	4.8

01443440 PAULINS KILL AT BALESVILLE, NJ--Continued

WATER QUALITY DATA, WATER YR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AC)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
03...	1030	--	2100	2.0	9.7	--	--	<1	--	--	--	<1
MAY												
17...	1045	<.5	--	--	--	40	<1	--	<10	<20	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
03...	--	5	<10	--	0	--	6700	--	20	--	630
MAY											
17...	10	--	--	4	--	300	--	2	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
03...	--	.01	--	<10	--	<1	--	50	--	6	<1.0
MAY											
17...	<.1	--	3	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATEL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
03...	<.1	3.0	<.1	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
03...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft upstream from bridge on State Highway 94 in Blairstown, 1,400 ft upstream from Blairs Creek, and 10 mi upstream from mouth. Water-quality samples collected at bridge 1,200 ft downstream from gage at high flows.

DRAINAGE AREA.--126 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.- 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft, downstream). Datum of gage is 335.86 ft National Geodetic Vertical Datum of 1929. Prior to May 24, 1922, nonrecording gage and May 24, 1922 to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.-Water-discharge records good except those for winter periods, which are fair. Diurnal fluctuation caused by powerplant above station and flow regulated slightly by Swartswood Lake.

AVERAGE DISCHARGE.--62 years, (water years 1922-76, 1978-84) 196 ft³/s, 21.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft³/s Aug. 19, 1955, gage height, 11.12 ft, from high-water mark in gage house; minimum, about 2.8 ft³/s Nov. 1, 1922; minimum daily, 5 ft³/s Aug. 13, 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0215	1650	5.05	May 4	1600	1270	4.11
Feb. 15	2215	1390	4.45	May 30	1615	*2390	6.25
Apr. 6	0030	1720	5.19	July 7	1730	1500	4.74

Minimum discharge, 15 ft³/s Oct. 10, gage height, 1.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	47	345	285	129	409	496	256	1470	287	174	113
2	47	46	291	257	117	357	581	237	1130	343	164	83
3	29	46	263	243	136	321	612	233	807	264	164	75
4	28	46	315	232	309	292	600	981	588	294	159	132
5	28	46	426	225	361	288	1260	895	467	291	187	136
6	41	32	382	219	270	322	1580	591	402	687	195	100
7	31	32	484	213	235	328	1280	478	420	1350	164	79
8	35	32	403	194	196	287	1030	520	367	1270	148	69
9	23	32	353	182	182	270	779	728	308	964	133	63
10	19	37	345	173	169	253	605	537	271	651	122	61
11	23	111	302	174	192	243	509	453	236	587	125	61
12	29	101	308	148	287	222	449	406	213	611	134	59
13	28	96	930	150	294	224	401	381	195	435	129	54
14	30	60	1600	158	351	319	371	366	194	349	119	52
15	38	81	1310	149	987	375	410	330	182	300	109	53
16	35	151	1030	127	1190	397	645	301	158	325	102	52
17	26	141	757	132	874	486	801	272	150	343	99	50
18	26	125	563	136	645	481	651	250	169	535	88	48
19	49	103	470	137	545	466	687	244	176	690	82	45
20	50	68	388	105	510	480	636	243	153	453	103	45
21	64	129	320	110	444	483	543	257	135	385	92	52
22	59	141	355	105	395	562	473	230	119	361	78	46
23	56	167	413	108	361	490	446	238	108	305	90	42
24	129	160	366	114	442	428	432	316	120	266	94	43
25	162	252	273	199	437	388	400	250	374	229	81	42
26	145	278	235	195	389	357	362	219	293	201	72	40
27	123	272	267	184	339	323	326	204	196	278	67	49
28	83	270	359	195	372	337	301	220	158	319	64	56
29	62	306	586	164	494	424	289	1040	134	251	62	61
30	50	409	431	148	---	413	273	2310	180	213	61	59
31	48	---	341	150	---	421	---	1940	---	191	132	---
TOTAL	1625	3817	15211	5311	11652	11446	18228	15926	9873	14028	3593	1920
MEAN	52.4	127	491	171	402	369	608	514	329	453	116	64.0
MAX	162	409	1600	285	1190	562	1580	2310	1470	1350	195	136
MIN	19	32	235	105	117	222	273	204	108	191	61	40
CFSM	.42	1.01	3.90	1.36	3.19	2.93	4.83	4.08	2.61	3.60	.92	.51
IN.	.48	1.13	4.49	1.57	3.44	3.38	5.38	4.70	2.91	4.14	1.06	.57

CAL YR 1983 TOTAL 101929 MEAN 279 MAX 2550 MIN 19 CFSM 2.21 IN. 30.09
WTR YR 1984 TOTAL 112630 MEAN 308 MAX 2310 MIN 19 CFSM 2.44 IN. 33.25

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 03...	1245	29	575	8.7	17.0	12.0	--	E1.7	170	17
FEB 09...	1000	175	370	7.2	1.0	13.2	--	E2.0	20	17
MAR 22...	1215	572	304	8.3	5.0	13.1	--	E1.3	20	6
MAY 17...	1245	273	317	8.4	12.5	11.2	106	E2.1	50	79
JUL 24...	1000	273	321	8.1	21.0	8.2	93	--	230	>2400
AUG 09...	1215	134	380	8.4	24.0	8.9	108	E1.5	330	240

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 03...	210	51	21	24	2.0	172	33	42	.20
FEB 09...	120	30	11	22	1.6	92	23	39	<.10
MAR 22...	110	27	9.5	16	1.1	78	21	30	<.10
MAY 17...	120	31	11	13	1.0	107	19	24	<.10
JUL 24...	130	32	12	13	1.1	110	16	20	<.10
AUG 09...	150	38	14	15	1.2	133	19	28	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	2.5	291	.009	.87	<.050	.39	1.3	.080	3.6
FEB 09...	4.9	206	.013	.81	.170	.61	1.4	.080	3.2
MAR 22...	3.9	170	.009	.72	<.050	.39	1.1	.040	3.0
MAY 17...	4.0	252	.008	.53	.060	.57	1.1	.060	3.2
JUL 24...	5.7	202	.012	.54	<.050	.41	.95	.080	4.5
AUG 09...	3.1	221	.005	.41	<.050	.39	.80	.050	4.0

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT							
03...	1245	3	<10	1	<10	<10	180

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT							
03...	4	20	<.1	<1	<1	10	<1

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft upstream from bridge on Hainesburg-Mount Vernon Road, 1.4 mi downstream of Yards Creek Reservoir, 2.2 mi northeast of Hainesburg, 2.4 mi upstream from mouth, and 4.2 mi west of Blairstown.

DRAINAGE AREA.--5.34 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NJ-77-2: 1976. WDR NJ-79-2: 1977(m). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 608 ft, from topographic map.

REMARKS.--Water-discharge records fair except those during winter periods and period of no gage-height record, Mar. 9 to 12, which are poor. Complete regulation by the Jersey Central Power and Light Co., at Yards Creek Reservoir 1.4 mi above station.

AVERAGE DISCHARGE.--18 years, 11.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 583 ft^3/s, Feb. 24, 1977, gage height, 3.92 ft; no flow Sept. 12, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 170 ft^3/s Dec. 15, gage height, 3.15 ft; maximum gage height, 3.83 ft Jan. 21 (backwater from ice); minimum, 1.1 ft^3/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.5	4.9	13	5.9	18	20	25	71	7.7	10	2.1
2	2.3	2.6	4.3	10	5.2	17	20	26	57	5.1	3.8	2.0
3	1.7	2.6	4.0	9.9	7.0	15	21	28	46	4.4	3.0	2.8
4	1.7	2.6	7.8	10	9.6	14	22	55	43	3.8	2.8	3.1
5	1.8	2.6	5.5	10	8.3	14	76	43	43	7.2	2.7	2.2
6	2.0	2.3	9.8	10	7.5	19	134	36	45	12	2.3	2.2
7	1.9	2.0	15	9.7	7.2	20	61	36	45	24	2.5	2.1
8	2.1	2.0	13	8.0	6.8	17	54	42	44	13	2.5	2.1
9	2.0	2.0	12	7.7	6.7	14	33	42	29	9.3	2.5	2.0
10	1.7	3.1	12	7.5	7.1	12	21	40	18	12	2.5	1.9
11	1.6	3.9	12	7.3	8.0	11	21	39	16	19	3.1	2.0
12	2.7	3.0	19	7.1	8.3	9.8	21	40	6.2	19	2.4	2.0
13	2.6	2.6	59	6.9	8.4	10	22	37	4.6	23	2.3	2.0
14	2.4	2.3	121	6.8	9.7	11	21	37	3.8	27	2.5	2.0
15	2.2	2.6	150	6.6	23	11	21	27	3.8	23	2.2	2.1
16	2.0	5.6	110	6.4	36	12	25	20	3.8	22	2.3	1.9
17	1.8	3.6	78	6.1	32	12	22	20	3.8	21	2.2	1.8
18	2.1	3.2	73	6.0	23	12	25	18	4.2	27	2.2	2.0
19	4.2	3.0	39	5.7	21	11	37	10	3.8	31	2.1	1.9
20	2.6	2.9	20	5.5	20	11	34	9.7	3.6	36	2.1	1.9
21	2.4	5.0	21	5.3	19	12	34	9.3	3.4	36	1.9	1.9
22	2.4	3.4	20	5.0	18	12	30	9.1	3.5	31	2.0	1.9
23	3.7	3.3	16	6.2	16	11	27	12	3.5	30	2.7	1.8
24	7.5	3.6	13	8.2	20	11	27	11	7.1	30	2.1	1.8
25	3.5	8.8	13	11	19	10	28	10	5.9	32	2.1	1.9
26	3.0	5.7	16	9.9	18	9.6	28	9.7	3.7	23	1.9	1.8
27	2.8	4.6	13	10	17	9.8	32	9.0	3.6	20	1.8	2.0
28	2.8	6.1	43	9.5	20	12	28	11	3.7	18	1.9	1.6
29	2.7	9.5	23	9.0	18	16	25	59	3.6	18	2.0	1.3
30	2.6	5.9	12	7.5	---	19	24	64	4.3	18	2.2	1.2
31	2.3	---	14	6.6	---	19	---	62	---	14	4.0	---
TOTAL	79.2	112.9	973.3	248.4	425.7	412.2	994	896.8	536.9	616.5	82.6	59.3
MEAN	2.55	3.76	31.4	8.01	14.7	13.3	33.1	28.9	17.9	19.9	2.66	1.98
MAX	7.5	9.5	150	13	36	20	134	64	71	36	10	3.1
MIN	1.6	2.0	4.0	5.0	5.2	9.6	20	9.0	3.4	3.8	1.8	1.2

CAL YR 1983 TOTAL 5791.12 MEAN 15.9 MAX 150 MIN .61
WTR YR 1984 TOTAL 5437.8 MEAN 14.9 MAX 150 MIN 1.2

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'43", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft upstream from CONRAIL (formerly Lehigh and Hudson River Railway) bridge, and 300 ft downstream from Furnace Brook.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft National Geodetic Vertical Datum of 1929. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--63 years, 155 ft^3/s, 19.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,130 ft^3/s Jan. 25, 1979, gage height, 5.97 ft, from floodmark; minimum, 12 ft^3/s Aug. 17-22, Dec. 10, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0030	886	3.67	May 4	1045	863	3.62
Feb. 15	2015	723	3.30	May 30	1315	*1210	4.36
Apr. 5	2145	1200	4.33	July 7	0945	1110	4.14
Apr. 16	2130	677	3.19				

Minimum discharge, 28 ft^3/s Oct. 11, gage height, 1.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	49	201	218	108	303	445	248	1030	225	171	82
2	38	46	175	208	91	262	475	230	779	239	160	74
3	37	44	161	205	132	244	446	226	614	191	160	71
4	34	44	245	194	362	226	422	706	518	158	156	148
5	34	45	292	190	285	226	965	572	441	163	157	161
6	34	43	240	186	211	277	1180	461	388	446	186	114
7	33	46	279	181	183	283	1120	386	352	1010	174	93
8	32	44	227	167	151	243	940	396	329	884	148	84
9	31	40	199	156	144	219	708	462	298	672	134	79
10	30	43	188	150	136	210	592	397	267	504	127	75
11	30	75	177	152	169	203	514	344	244	443	124	76
12	33	97	187	125	259	190	460	340	220	557	120	74
13	38	85	652	123	237	182	422	360	202	473	119	69
14	36	75	825	144	266	304	396	336	197	393	115	66
15	34	68	688	132	579	367	402	301	188	325	107	66
16	31	117	574	98	655	398	537	276	173	296	101	65
17	31	114	465	119	554	429	619	257	166	278	121	62
18	31	93	391	118	462	406	546	246	188	339	104	60
19	59	82	338	121	410	383	568	252	191	362	94	58
20	60	74	281	89	382	350	598	269	172	317	124	56
21	46	146	232	100	339	338	499	290	153	279	106	55
22	40	131	329	90	297	379	432	242	140	265	94	52
23	44	105	388	93	271	364	404	222	131	243	110	51
24	213	98	309	104	345	336	392	250	146	219	111	51
25	159	302	181	178	357	309	370	226	328	196	97	53
26	104	276	166	198	324	286	338	199	272	181	86	51
27	78	218	214	188	279	264	310	188	208	286	81	49
28	65	195	273	176	291	257	288	195	164	294	79	49
29	56	319	535	139	373	276	272	648	144	245	77	51
30	51	240	343	127	---	291	262	1180	158	206	77	49
31	52	---	256	124	---	332	---	1160	---	188	80	---
TOTAL	1632	3354	10011	4593	8652	9137	15922	11865	8801	10877	3700	2144
MEAN	52.6	112	323	148	298	295	531	383	293	351	119	71.5
MAX	213	319	825	218	655	429	1180	1180	1030	1010	186	161
MIN	30	40	161	89	91	182	262	188	131	158	77	49
CFSM	.50	1.06	3.05	1.40	2.81	2.78	5.01	3.61	2.76	3.31	1.12	.67
IN.	.57	1.18	3.51	1.61	3.04	3.21	5.59	4.16	3.09	3.82	1.30	.75

CAL YR 1983 TOTAL 79400 MEAN 218 MAX 1460 MIN 28 CFSM 2.06 IN. 27.86
WTR YR 1984 TOTAL 90688 MEAN 248 MAX 1180 MIN 30 CFSM 2.34 IN. 31.83

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at mile 197.7.

DRAINAGE AREA.--4,535 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--62 years, 7,921 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft^3/s Aug. 19, 1955, gage height, 30.21 ft, from high-water mark in gage house, from rating curve extended above 170,000 ft^3/s on basis of flood-routing study; minimum, 609 ft^3/s Sept. 28, 29, 1943, gage height, 2.11 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft^3/s, from rating curve extended above 170,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 111,000 ft^3/s May 30, gage height, 18.99 ft; minimum, 1,260 ft^3/s Oct. 17, gage height, 2.83 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1940	2120	12200	8080	2940	11900	10100	10000	61000	9740	4450	3020
2	2130	2170	9790	7270	2810	10300	10700	9130	39600	18100	4270	2400
3	2150	2220	8250	6850	3330	9280	12200	8510	29500	15200	5140	2270
4	1960	2230	7870	6760	4770	8480	14100	16600	23800	11100	4530	2620
5	1750	2230	8330	6600	5150	7750	39400	24300	19400	8550	4230	2760
6	1890	2200	8350	6200	4930	8280	89200	20400	15700	9840	4110	2680
7	2040	2180	12100	5980	5230	8460	61700	17500	13600	14100	4230	2390
8	2120	2220	19700	4880	4990	8150	40800	16300	11900	16800	4310	2320
9	1970	2160	15400	4260	4860	7280	29900	17100	10500	13500	4190	2180
10	1900	2130	12600	4930	4560	6690	23600	17500	8370	10700	4170	2200
11	1880	2610	10200	4810	4770	6040	20000	15700	7280	9710	3930	2150
12	2070	3140	8930	4040	4920	5330	17400	14200	7270	9960	3560	2100
13	2470	2940	19000	3610	5320	5700	15500	12700	6740	9060	3170	2070
14	2330	2950	66600	4320	6920	6340	14000	13500	6540	7720	3360	2080
15	2120	2640	65400	4200	29100	6850	13800	14500	6430	6770	3410	2270
16	1720	3770	38400	3350	65300	7240	17900	14500	5980	6470	3060	2340
17	1460	3850	26000	3350	43100	8450	30000	13300	5070	6570	3120	2320
18	1710	3430	19600	3920	28400	9100	31700	12000	4710	7580	3330	2110
19	2180	2930	16300	3960	22000	8790	27700	11000	5370	9230	2950	1990
20	2670	3120	13900	3400	20300	9290	26400	9820	5290	8050	2790	2180
21	2510	3920	11100	3190	19500	10200	24800	9540	4370	7040	2760	2150
22	2340	4480	10800	3350	16500	13400	20500	10200	3520	5680	2790	2080
23	2480	5040	11800	3070	14400	15200	17700	9620	3130	4510	3020	2120
24	3660	4610	10800	3320	14200	13600	17500	10500	3140	4730	2910	2110
25	3690	6150	8670	4250	15400	11100	16600	10900	5840	5080	2770	2030
26	3130	9010	7160	4590	13800	10200	15400	9610	4620	4530	2650	2190
27	2680	10000	7540	4490	12200	10300	14100	8790	3910	5030	2310	2210
28	2590	8810	7890	4820	11600	10100	12800	8370	3330	5640	2330	2180
29	2390	10700	10700	4390	12500	11200	10600	26600	2950	5600	2460	1990
30	2210	12400	9680	3550	---	11300	9710	104000	3670	4870	2540	2000
31	2150	---	8930	3500	---	10700	---	89000	---	4550	3060	---
TOTAL	70290	128360	503990	143290	403800	287000	705810	585690	332530	266010	105910	67510
MEAN	2267	4279	16260	4622	13920	9258	23530	18890	11080	8581	3416	2250
MAX	3690	12400	66600	8080	65300	15200	89200	104000	61000	18100	5140	3020
MIN	1460	2120	7160	3070	2810	5330	9710	8370	2950	4510	2310	1990

CAL YR 1983 TOTAL 3337310 MEAN 9143 MAX 91000 MIN 1360
WTR YR 1984 TOTAL 3600190 MEAN 9837 MAX 104000 MIN 1460

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
05...	1245	1850	157	8.4	19.5	9.7	--	E1.7	20	920
FEB										
22...	1045	17200	104	7.4	3.0	12.8	--	E1.6	50	14
MAR										
27...	1345	9920	107	7.9	6.0	14.1	--	E2.0	<20	24
JUN										
07...	1030	13800	115	7.7	17.0	9.4	98	E1.6	270	920
JUL										
23...	1030	4770	158	8.0	22.5	8.1	95	E1.8	20	350
AUG										
14...	1030	3220	167	8.0	24.0	7.6	91	2.8	80	540

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	56	15	4.4	8.1	1.1	36	19	10	<.10
FEB									
22...	33	9.1	2.5	4.6	.80	18	15	8.3	<.10
MAR									
27...	36	9.8	2.7	5.1	.70	22	13	9.2	<.10
JUN									
07...	40	11	3.1	4.3	.80	26	14	6.5	<.10
JUL									
23...	64	17	5.2	5.6	1.0	46	16	9.3	<.10
AUG									
14...	60	16	4.9	6.2	1.0	45	19	9.6	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	1.4	88	.010	.61	<.050	.24	.85	.060	2.3
FEB									
22...	3.5	64	.005	.60	.050	.23	.83	.040	3.1
MAR									
27...	2.7	66	.008	.35	.160	.25	.60	.020	2.2
JUN									
07...	3.3	88	.010	.57	.050	.46	1.0	.050	2.3
JUL									
23...	3.5	117	.008	.67	<.050	.30	.97	.040	3.1
AUG									
14...	3.0	134	.005	.68	.050	.36	1.0	.040	2.4

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, PA, Hydrologic Unit 02040106, on left bank 110 ft upstream from New Street Bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi^2, includes that of Monocacy Creek. At site used prior to October 1, 1928, 1,229 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5, WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--Water-discharge records good. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--77 years (water years 1902-04, 1909-84), 2,349 ft^3/s, 24.94 in/yr, adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft^3/s May 23, 1942, gage height, about 25.9 ft, from floodmark, present site and datum, from rating curve extended above 48,000 ft^3/s; minimum, 125 ft^3/s June 28, 1965, gage height, 0.94 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 28, 1902, reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,700 ft^3/s, Dec. 14, gage height, 13.03 ft; minimum, 380 ft^3/s Oct. 7, gage height, 1.10 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	715	4670	2960	1390	3540	3940	3390	16700	4370	1550	1060
2	487	688	3950	2870	1290	3120	3940	2860	10000	4600	1430	970
3	485	685	3190	2700	1300	2790	4100	2760	8180	5000	1430	967
4	444	691	3610	2670	3490	2620	4690	10100	7270	4430	1420	1140
5	496	673	3950	2540	2850	2690	17900	10700	4900	4800	1550	1110
6	451	618	3890	2280	1750	2890	23800	7350	4280	5790	1580	952
7	399	605	5210	2030	2070	2650	14900	5490	3550	9500	1680	876
8	496	578	5010	1690	1830	2400	16000	5310	3240	7320	1520	832
9	549	575	4440	1580	1460	2270	14600	5560	2960	5850	1510	815
10	551	679	3530	1620	1380	2180	13600	5590	2800	4280	1440	819
11	545	857	3080	1620	1800	2250	10100	4530	2560	4190	1390	823
12	680	1230	3930	1390	2560	2030	5930	4020	2120	4130	1380	800
13	804	979	23600	1390	2460	1770	5530	3760	2040	4270	1390	767
14	835	874	27600	1430	3050	1870	4680	4030	2020	3040	1320	751
15	1010	992	16200	1420	10700	2080	4420	3880	1930	2780	1290	829
16	1100	3770	15600	1290	10500	2230	5010	3400	1660	3040	1270	1160
17	799	3150	12900	1360	12400	2480	5140	3150	1820	2650	1260	841
18	728	2390	9400	1370	10200	2430	5400	2870	2620	3600	1270	734
19	873	1830	7450	1370	6780	2450	5000	2750	2690	3910	1270	707
20	993	1420	6160	1250	5500	2610	4860	2860	2360	3380	1280	714
21	884	3130	4520	1170	5030	2890	4270	3510	1960	2800	1290	699
22	835	3450	5240	1090	4930	4170	3960	3440	1510	2530	1260	683
23	969	3010	5670	1160	4080	4350	3900	3260	1440	2370	1340	680
24	2550	2370	4170	1290	4730	3610	3730	3870	1850	2210	1320	693
25	1760	4230	3430	2130	4500	3310	3660	3460	5370	1880	1220	686
26	1240	4800	3200	2760	3960	3190	3760	3120	3240	1560	1230	679
27	1170	3970	3400	2580	3880	2990	3480	3010	2450	2850	1200	677
28	1070	3690	4500	2120	4320	3160	3140	2950	2190	2730	1100	757
29	969	5510	7200	1410	4270	3660	3290	16000	1780	2310	892	721
30	777	5510	4820	1340	---	3730	3100	19900	2860	2140	973	736
31	736	---	3210	1420	---	3520	---	15300	---	1920	1120	---
TOTAL	26198	63669	216730	55300	124460	88130	209830	172180	110350	115910	41175	24678
MEAN	845	2122	6991	1784	4292	2843	6994	5554	3678	3739	1328	823
MAX	2501	5510	27600	2960	12400	4350	23800	19900	16700	9500	1680	1160
MIN	399	575	3080	1090	1290	1770	3100	2750	1440	1560	892	677

CAL YR 1983 TOTAL 1136798 MEAN 3115 MAX 36100 MIN 399
WTR YR 1983 TOTAL 1248610 MEAN 3412 MAX 27600 MIN 399

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek.

DRAINAGE AREA.--33.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1962 and January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 12...	1130	12	267	8.0	14.5	9.3	--	E1.4	1700	>2400
FEB 09...	1240	28	218	7.3	1.5	14.6	--	2.3	40	5
MAR 27...	1245	43	177	9.2	9.0	15.2	--	E2.0	<20	4
JUN 07...	1200	75	184	7.9	18.0	10.1	108	E1.8	1400	350
JUL 19...	1030	69	206	7.8	18.0	8.6	92	<1.1	1300	1600
AUG 08...	1030	40	237	7.9	19.5	9.7	107	E2.4	5400	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 12...	100	23	11	13	2.8	81	21	19	<.10
FEB 09...	69	16	7.1	11	1.7	44	20	18	<.10
MAR 27...	59	14	5.8	7.9	1.3	38	19	13	<.10
JUN 07...	68	16	6.8	6.9	1.3	48	20	9.1	<.10
JUL 19...	78	19	7.3	6.6	1.7	56	18	11	<.10
AUG 08...	92	22	9.1	7.5	1.7	71	18	11	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	13	164	.033	2.6	.130	.58	3.2	.390	5.4
FEB 09...	12	130	.015	1.8	.490	.67	2.5	.180	2.7
MAR 27...	11	107	.015	1.4	.180	.36	1.7	.090	2.6
JUN 07...	13	140	.022	1.5	.110	.47	1.9	.090	1.6
JUL 19...	13	146	.039	1.6	.090	.74	2.3	.110	3.2
AUG 08...	13	166	.052	2.0	<.050	.38	2.4	.110	1.9

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)
OCT												
12...	1130	<.5	470	.2	3.4	10	2	<1	<10	60	2	1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT											
12...	10	4	<10	<10	<1	180	3000	97	10	10	150

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
12...	<.1	.06	4	<10	<1	<1	50	20	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
12...	<.1	2.0	.4	.1	.2	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
12...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Unit 02040105, just upstream of bridge on Warren County Route 43 and 300 ft downstream from Lake Hopatcong dam in Landing.

DRAINAGE AREA.--25.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 25...	1030	33	264	7.9	1.0	14.0	--	E1.4	<20	4
MAR 21...	1300	30	240	7.7	2.5	13.5	--	E1.4	<20	7
MAY 16...	1330	84	217	7.6	13.0	10.3	101	E2.1	20	50
JUL 11...	1030	195	230	7.9	22.5	8.0	97	E1.9	<20	24
AUG 07...	1030	27	204	8.0	26.0	8.0	103	E1.6	<20	>2400
SEP 27...	1330	13	210	7.9	18.0	8.8	94	E1.6	80	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 25...	53	14	4.3	20	.90	29	18	38	<.10
MAR 21...	50	13	4.2	23	.90	26	17	45	<.10
MAY 16...	48	13	3.8	20	.90	22	16	39	.10
JUL 11...	45	12	3.6	19	.70	23	16	38	<.10
AUG 07...	46	12	3.8	19	.60	26	14	35	<.10
SEP 27...	46	12	3.9	20	.70	25	15	36	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	4.1	126	.010	.21	<.050	.20	.41	.040	3.6
MAR 21...	2.5	139	.004	.25	.010	.32	.57	.020	3.0
MAY 16...	2.4	142	<.003	.15	.050	.50	.65	.040	3.5
JUL 11...	1.7	129	.005	.06	.100	.32	.38	.030	3.8
AUG 07...	1.9	132	.006	<.05	.060	.52	--	.040	2.8
SEP 27...	3.3	119	<.003	<.05	.090	.14	--	.030	3.8

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
MAY											
16...	1330	<.5	--	--	<10	<1	--	<10	20	<1	--
SEP											
27...	1330	--	.2	3.3	--	--	<1	--	--	--	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
MAY											
16...	10	--	--	3	--	140	--	1	--	60	--
SEP											
27...	-	3	<10	--	0	--	4700	--	20	--	230

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
16...	<.1	--	2	--	<1	--	10	--	<1	--	--
SEP											
27...	--	<.01	--	<10	--	<1	--	40	--	40	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	<1.0	<.1	<.1	.5	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ

LOCATION.--Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge in Lockwood, at boundary between Sussex County and Morris County, 0.2 mi southeast of Cage Hill, 0.4 mi south of Jefferson Lake, and 0.9 mi downstream from Lubbers Run.

DRAINAGE AREA.--60.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN										
25...	1145	97	496	7.7	1.5	12.3	--	3.1	80	110
MAR										
21...	1145	190	293	7.8	4.5	12.3	--	E2.0	<20	15
MAY										
16...	1145	210	236	7.8	13.0	10.3	100	E2.0	<20	110
JUL										
11...	1200	280	256	7.7	22.5	8.0	95	E1.6	20	240
AUG										
07...	1200	56	267	7.9	24.0	8.0	98	E1.8	330	>2400
SEP										
27...	1200	18	298	7.9	14.5	8.2	81	3.9	700	540

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
25...	84	21	7.7	53	1.3	52	21	96	<.10
MAR									
21...	68	17	6.1	23	1.1	53	17	33	<.10
MAY									
16...	62	16	5.4	19	.90	39	16	36	.10
JUL									
11...	57	15	4.8	19	.90	36	17	36	<.10
AUG									
07...	80	20	7.3	18	1.0	60	14	33	.10
SEP									
27...	110	26	10	24	1.4	71	18	45	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
25...	7.6	258	.017	.48	.420	.86	1.3	.110	3.9
MAR									
21...	4.4	147	.007	.33	.260	.66	.99	.060	3.2
MAY									
16...	2.7	159	.015	.15	.140	.77	.92	.060	3.0
JUL									
11...	4.5	137	.035	.17	.190	.46	.63	.060	3.8
AUG									
07...	7.0	173	.125	.54	.060	.53	1.1	.100	3.4
SEP									
27...	6.4	195	.133	.97	.630	1.4	2.4	.210	3.0

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
27...	1200	10	1	<10	40	1	20	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
SEP								
27...	380	2	90	<.1	1	<1	20	<1

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beattystown, 1.6 mi upstream of Hanes Brook, 2.1 mi northeast of Stephensburg, and 3.5 mi northeast of Scrappy Corner.

DRAINAGE AREA.--90.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 25...	1300	E229	369	8.0	1.5	13.8	--	E1.6	1300	49
MAR 21...	1030	E316	248	7.9	6.0	12.4	--	2.8	50	11
MAY 16...	1030	E260	247	8.2	12.0	11.4	107	E1.5	50	33
JUL 11...	1330	E473	262	8.0	21.0	8.8	102	E1.8	330	350
AUG 07...	1330	E182	307	8.5	22.5	9.5	112	E1.8	330	540
SEP 27...	1030	E58	360	8.4	13.5	10.8	104	E1.7	140	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 25...	110	25	11	25	1.4	80	21	45	<.10
MAR 21...	79	19	7.7	17	.90	39	16	45	<.10
MAY 16...	83	20	8.0	17	.90	58	15	31	.10
JUL 11...	73	18	6.8	14	.90	53	15	28	<.10
AUG 07...	110	26	12	15	1.2	94	16	27	.10
SEP 27...	140	31	15	20	1.5	111	18	35	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	9.3	204	.026	.92	.450	.83	1.8	.190	3.3
MAR 21...	5.6	163	.011	.44	.070	.69	1.1	.080	2.8
MAY 16...	4.6	171	.019	.42	.110	.79	1.2	.090	3.4
JUL 11...	6.8	147	.018	.43	.060	.49	.92	.090	4.1
AUG 07...	8.2	201	.042	.90	.050	.47	1.4	.170	2.9
SEP 27...	6.3	207	.054	1.3	.190	.33	1.6	.260	2.3

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
16...	1030	<.5	<10	1	<10	20	<1	<10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
16...	270	1	40	<.1	2	<1	30	<1

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from highway bridge, 1.5 mi upstream from Bloomsbury, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--141 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft National Geodetic Vertical Datum of 1929. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Apr. 23 to June 14 and those for winter periods, which are fair. Flow regulated by Lake Hopatcong (see Delaware River Basin, reservoirs in). Diurnal fluctuation caused by small powerplants above station.

AVERAGE DISCHARGE.--66 years (water years 1904-06, 1922-84), 236 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s Jan. 25, 1979, gage height, 8.50 ft, from floodmark, from rating curve extended above 1,800 ft³/s on basis of slope-area measurement at gage height 6.95 ft; minimum, 8.1 ft³/s Aug. 2, 1955; minimum daily 27 ft³/s Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1815	1490	4.41	Apr. 16	1715	1050	3.67
Dec. 22	1830	1050	3.67	May 30	Unknown	2530	5.80
Dec. 26	---	2010	a5.52	July 5	2230	1540	4.49
Apr. 5	1515	2750	6.03	July 7	0215	*4200	6.79
Apr. 9	1545	1210	3.98				

a Ice jam.

Minimum discharge, 66 ft³/s Oct. 1, 10, 11, gage height, 1.29 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	88	375	340	167	404	528	385	1300	524	227	152
2	88	147	321	322	159	351	559	365	900	485	216	133
3	91	216	307	310	190	332	610	350	720	362	216	127
4	86	211	417	280	587	313	666	540	620	307	207	220
5	81	183	423	270	315	317	2140	1080	540	449	216	210
6	82	163	382	255	257	394	2300	760	480	858	237	162
7	75	154	493	240	225	361	1980	560	440	2520	224	141
8	72	147	447	230	197	313	1570	520	415	1230	203	132
9	70	143	401	220	188	304	1250	550	385	982	189	127
10	69	142	385	205	181	287	1040	585	370	817	184	125
11	69	188	369	195	239	280	892	520	345	733	180	125
12	81	300	424	176	298	264	777	460	335	813	174	126
13	101	291	1040	172	271	271	695	460	320	662	181	118
14	98	274	1220	174	286	677	634	490	305	557	171	114
15	91	276	1020	166	701	624	625	430	281	488	162	118
16	86	348	851	159	750	583	857	395	260	492	154	120
17	81	261	734	150	611	579	812	360	253	475	162	116
18	77	238	663	145	529	534	736	325	283	527	157	111
19	125	271	609	142	477	502	794	320	271	505	148	108
20	138	275	553	140	447	470	776	375	245	437	166	108
21	114	383	513	138	403	468	676	450	220	415	186	105
22	97	346	748	135	361	504	605	520	207	400	152	103
23	101	323	747	132	335	461	586	370	200	358	169	101
24	339	287	634	160	509	420	600	360	264	324	176	104
25	233	478	606	284	456	392	570	350	552	296	155	104
26	163	449	1350	285	396	370	525	295	342	267	141	102
27	129	394	760	265	353	328	480	320	265	373	135	97
28	113	407	488	226	415	362	450	330	235	346	130	99
29	101	536	661	194	476	472	420	390	215	296	130	98
30	92	446	461	183	---	414	405	920	279	264	132	96
31	90	---	383	181	---	465	---	2000	---	245	136	---
TOTAL	3315	8365	18785	6474	10779	12816	25558	16135	11847	17807	5416	3702
MEAN	107	279	606	209	372	413	852	520	395	574	175	123
MAX	339	536	1350	340	750	677	2300	2000	1300	2520	237	220
MIN	69	88	307	132	159	264	405	295	200	245	130	96

CAL YR 1983 TOTAL 125041 MEAN 343 MAX 2590 MIN 69
WTR YR 1984 TOTAL 140999 MEAN 385 MAX 2520 MIN 69

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--156 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

REMARKS.--Water-quality samples do not include Riegelsville Paper Company bypass.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 12...	1330	E77	340	8.2	14.5	10.0	--	E1.6	330	350
FEB 07...	1145	E259	312	8.0	2.0	13.8	--	E2.0	490	130
MAR 22...	1330	E548	257	8.3	6.5	13.2	--	E1.4	60	23
JUN 07...	1330	E476	267	8.0	18.5	9.7	104	E1.7	<20	79
JUL 19...	1200	E563	278	8.1	19.5	8.9	98	2.4	1300	540
AUG 08...	1230	E222	307	8.4	20.5	9.5	107	E2.1	5400	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 12...	160	35	17	11	1.9	123	23	21	<.10
FEB 07...	110	25	12	18	1.5	83	20	33	<.10
MAR 22...	91	21	9.4	14	1.1	63	18	26	<.10
JUN 07...	99	23	10	11	1.2	75	19	22	<.10
JUL 19...	110	24	11	11	1.3	79	19	19	<.10
AUG 08...	130	29	14	10	1.5	103	20	18	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	5.8	199	.045	2.0	<.050	1.1	3.1	.100	4.9
FEB 07...	8.2	194	.016	1.7	.130	.64	2.3	.080	2.9
MAR 22...	7.2	146	.011	1.3	<.050	.59	1.9	.040	1.9
JUN 07...	8.5	193	.016	1.5	.170	.64	2.1	.100	2.0
JUL 19...	9.0	195	.013	1.5	.060	.62	2.1	.120	2.7
AUG 08...	6.9	206	.024	1.9	.060	.62	2.5	.080	2.3

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
12...	1330	<.5	90	2	<10	20	1	<10	<10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
12...	240	7	20	<.1	4	<1	30	4

01460500 DELAWARE AND RARITAN CANAL AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'08", Middlesex County, Hydrologic Unit 02040105, on right bank at canal lock at Kingston, and 250 ft upstream from new bridge on State Highway 27.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1947 to current year.

GAGE.--Two water-stage recorders and concrete control. Datum of gage is 40.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those from May 3 to Sept. 30, which are poor. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. There was no diversion from the Delaware River from Mar. 16 to Sept. 30 (see Diversions, Delaware River basin). Some water wasted to the Millstone River 500 ft above station. On days of zero flow during the period Mar. 16 to Sept. 30, reverse flow may have occurred due to pumping out of the gage pool to the upstream end of the lock for water supply.

AVERAGE DISCHARGE.--37 years, 74.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft³/s Apr. 6, 1957; no flow many days in many years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 117 ft³/s Nov. 26; no flow many days in June to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	68	107	87	79	85	61	42	54	.00	66	.00
2	44	69	107	86	79	83	57	54	54	42	63	.00
3	46	70	107	85	79	82	50	53	43	59	63	.00
4	46	72	107	85	84	82	47	54	45	60	.00	.00
5	44	73	108	85	84	82	65	49	50	52	28	22
6	50	73	105	85	84	85	60	46	50	59	78	17
7	49	80	106	86	83	83	58	46	52	34	55	17
8	26	90	108	85	82	82	58	49	50	88	66	22
9	49	95	108	85	81	82	56	46	72	65	66	.00
10	49	96	107	85	79	82	54	49	61	74	50	.00
11	48	108	107	87	79	82	49	48	58	46	60	.00
12	52	110	106	84	79	81	43	50	57	66	63	.00
13	62	109	106	81	80	82	42	49	9.0	57	62	.00
14	67	105	106	81	79	85	40	45	.00	57	64	.00
15	65	104	97	81	84	82	39	46	.00	59	64	28
16	64	116	98	81	85	71	41	48	.00	59	67	.00
17	67	116	100	81	84	54	42	48	.00	61	61	21
18	69	109	98	80	82	33	41	46	28	37	37	33
19	70	107	93	80	81	37	40	48	42	61	26	13
20	72	107	89	82	81	54	40	49	45	68	32	6.8
21	72	112	88	83	80	52	39	47	45	42	23	.00
22	72	113	95	82	80	49	38	48	14	64	.00	.00
23	73	112	88	81	79	45	37	48	.00	65	13	.00
24	81	111	86	79	82	39	38	51	.00	46	21	.00
25	83	116	86	78	82	37	40	56	40	64	18	.00
26	80	117	86	79	82	36	42	46	86	47	.00	.00
27	77	115	84	81	81	37	43	47	53	.00	.00	.00
28	74	108	86	81	86	38	45	46	38	78	.00	.00
29	74	106	90	81	87	51	45	40	.00	61	.00	.00
30	71	108	89	80	---	63	44	19	.00	67	.00	.00
31	68	---	88	79	---	60	---	59	---	55	.00	---
TOTAL	1907	2995	3036	2556	2367	1996	1394	1472	1046.00	1693.00	1146.00	179.80
MEAN	61.5	99.8	97.9	82.5	81.6	64.4	46.5	47.5	34.9	54.6	37.0	5.99
MAX	83	117	108	87	87	85	65	59	86	88	78	33
MIN	26	68	84	78	79	33	37	19	.00	.00	.00	.00

CAL YR 1983 TOTAL 25647.7 MEAN 70.3 MAX 117 MIN 3.8
WTR YR 1984 TOTAL 21787.80 MEAN 59.5 MAX 117 MIN .00

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
13...	1300	4180	228	8.0	17.5	9.0	--	E1.3	50	79
JAN										
18...	0915	6540	222	8.0	.5	13.3	--	E1.7	170	17
APR										
09...	1030	48400	103	7.5	6.0	11.7	--	E1.7	130	22
JUN										
05...	1400	25600	122	7.7	16.5	9.5	98	E1.6	230	17
JUL										
25...	1445	8190	218	8.7	25.0	9.8	119	E1.5	230	49
AUG										
20...	1330	4880	228	8.6	23.5	8.8	104	E1.6	40	20
SEP										
24...	1045	3220	246	8.1	20.5	7.9	87	E1.7	20	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
13...	83	21	7.4	11	1.5	51	26	16	.10
JAN									
18...	77	20	6.6	11	1.4	45	27	17	.10
APR									
09...	33	8.9	2.6	4.8	.90	17	15	9.0	<.10
JUN									
05...	41	11	3.4	4.6	.90	25	16	7.4	<.10
JUL									
25...	78	20	6.8	7.1	1.3	54	25	12	<.10
AUG									
20...	83	21	7.5	8.8	1.6	60	23	13	.10
SEP									
24...	96	24	8.7	11	1.7	64	27	16	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	2.5	130	.125	1.6	.160	.58	2.2	.180	2.6
JAN									
18...	5.8	141	.018	1.3	.600	.97	2.3	.110	2.8
APR									
09...	3.7	54	.005	.70	.140	.54	1.2	.060	3.3
JUN									
05...	4.0	84	.010	.69	<.050	.62	1.3	.070	2.7
JUL									
25...	4.7	136	.019	1.0	.070	.20	1.2	.090	3.2
AUG									
20...	4.1	130	.023	1.2	.090	.40	1.6	.080	2.1
SEP									
24...	2.6	139	.042	1.5	.140	.60	2.1	.090	1.8

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 05...	1400	<.5	40	1	<10	30	2	20	5
SEP 24...	1045	<.5	<10	1	<10	60	1	<10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN 05...	620	7	70	<.1	5	<1	40	<1
SEP 24...	150	1	30	.2	2	<1	10	<1

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ

LOCATION.--Lat 40°24'41", long 74°59'13", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29 in Stockton, 900 ft upstream from mouth.

DRAINAGE AREA.--26.6 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 13...	1015	5.1	217	8.8	18.5	9.8	--	1.1	490	240
JAN 18...	1015	E14	378	7.5	.0	14.3	--	E1.6	<20	49
APR 09...	1130	E60	212	7.4	9.0	11.1	--	<1.1	<20	4
MAY 21...	1330	E77	178	7.6	18.0	9.7	103	2.4	460	--
JUL 19...	1345	E38	137	8.0	22.0	9.0	103	E1.8	2400	>2400
AUG 08...	1345	E14	274	8.7	26.0	8.8	110	E1.3	230	540
SEP 24...	1230	E1.9	218	8.2	19.0	12.1	130	E1.5	330	2400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	63	15	6.2	15	2.5	47	21	16	<.10
JAN 18...	51	12	5.0	48	1.7	26	38	63	.20
APR 09...	40	9.5	3.9	21	1.6	21	27	28	<.10
MAY 21...	32	7.7	3.0	19	1.6	17	22	23	<.10
JUL 19...	36	8.8	3.5	14	2.1	25	21	13	.10
AUG 08...	46	11	4.5	30	2.3	31	25	38	.10
SEP 24...	67	16	6.5	14	1.9	46	24	13	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	12	--	.011	2.2	<.050	.34	2.5	.150	3.5
JAN 18...	12	218	.007	2.7	<.050	.44	3.2	.050	1.7
APR 09...	12	113	.005	2.5	.240	.27	2.8	.040	1.8
MAY 21...	8.5	133	.015	.64	.100	.65	1.3	.080	6.0
JUL 19...	7.9	97	.016	1.5	<.050	.59	2.1	.080	4.7
AUG 08...	12	168	.010	1.7	<.050	.19	1.8	.060	2.1
SEP 24...	11	128	.018	3.2	E.060	E.05	--	.050	1.2

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT									
13...	1015	.5	30	1	10	50	3	20	<10
MAY									
21...	1330	<.5	70	1	<10	30	1	10	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
13...	60	5	10	<.1	4	<1	<10	<1
MAY								
21...	1300	3	30	<.1	5	<1	10	<1

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ

LOCATION.--Lat 40°17'20", long 74°52'08", Mercer County, Hydrologic Unit 02040105, at bridge at Washington Crossing, 1.4 mi upstream of Jacobs Creek.

DRAINAGE AREA.--6,735 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUSR (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 05...	1445	3050	230	8.5	21.0	10.4	--	E1.5	700	>2400
FEB 07...	1345	8460	204	7.8	1.0	13.0	--	E2.3	70	17
APR 09...	1300	53000	100	7.3	6.5	11.6	--	2.6	170	13
MAY 15...	1345	18600	134	7.9	13.0	10.7	102	E.9	<20	11
JUL 24...	1445	8360	217	8.3	24.0	8.9	106	--	330	27
AUG 14...	1445	5810	224	8.7	26.5	9.8	122	2.9	<20	79
SEP 24...	1430	3300	240	8.9	22.0	10.0	114	E1.7	80	11

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	84	21	7.7	10	1.6	54	25	15	.10
FEB 07...	66	17	5.8	11	1.6	44	22	19	<.10
APR 09...	32	8.6	2.6	4.4	.90	18	14	8.0	<.10
MAY 15...	49	13	4.1	5.1	.90	30	17	8.7	.10
JUL 24...	78	20	6.8	6.9	1.4	53	23	11	<.10
AUG 14...	83	21	7.5	8.2	1.5	59	24	12	<.10
SEP 24...	95	24	8.6	11	1.7	64	27	16	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	2.5	117	.044	1.4	<.050	.38	1.8	.130	2.9
FEB 07...	4.8	122	.019	1.3	.310	1.3	2.5	.100	3.4
APR 09...	3.7	53	.006	.76	.240	.58	1.3	.060	3.0
MAY 15...	3.3	101	.013	.80	.170	.66	1.5	.050	2.0
JUL 24...	4.8	149	.015	1.1	<.050	.38	1.5	.080	2.6
AUG 14...	4.3	149	.031	1.5	<.050	.39	1.9	.080	2.3
SEP 24...	2.3	140	.045	1.6	.080	.28	1.9	.080	1.9

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1445	<.5	<10	4	<10	210	<1	10	10
MAY									
15...	1345	<.5	30	<1	<10	<20	1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	340	3	20	.1	6	<1	40	<1
MAY								
15...	170	2	30	<.1	3	<1	20	<1

01463500 DELAWARE RIVER AT TRENTON, NJ

(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--72 years, 11,740 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft^3/s Aug. 20, 1955, elevation, 28.60 ft, from high-water mark in gage house, from rating curve extended above 230,000 ft^3/s; minimum, 1,180 ft^3/s Oct. 31, 1963, elevation, 7.26 ft. Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft^3/s. Maximum elevation since 1903, 30.6 ft National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Elevation (ft)	Date	Time	Discharge (ft^3/s)	Elevation (ft)
Dec. 15	0430	110000	18.27	May 30	1630	*152000	20.64
Feb. 16	1600	87300	16.72	July 7	0930	90700	16.96
Apr. 6	1715	133000	19.58				

Minimum discharge, 2,500 ft^3/s Oct. 1, gage height, 7.89 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2810	3560	20500	15300	6010	18100	19800	13900	96200	12700	7910	4880
2	3100	3490	17500	13100	5270	16100	18700	14000	67200	23200	7340	4650
3	3300	3490	14800	12000	5080	14000	19400	12600	46800	25500	7180	4030
4	3280	3620	16500	11200	9670	12900	20400	25500	37700	19100	7710	4060
5	3090	3710	18300	10900	13200	12200	53200	39700	30400	15400	7580	4780
6	3010	3900	15400	10100	9610	13000	121000	34400	23700	20100	7550	4570
7	2940	3690	18400	9570	8550	13400	101000	27400	20200	49300	7000	4250
8	2990	3410	24700	8890	8610	12600	69800	24100	17600	34500	7500	3870
9	3190	3380	25200	7630	8010	11800	54400	25800	15600	26300	7040	3710
10	3110	3450	19900	7200	7390	10600	44500	25500	14000	19900	7100	3570
11	3010	4130	16600	8110	7330	10100	36300	23500	12100	16800	6840	3600
12	3170	4690	16200	7530	9880	9270	28700	20700	10700	17700	6750	3550
13	3560	5450	45100	6830	9790	8910	24300	18700	10600	15700	6110	3430
14	4150	4920	88200	6210	10200	15600	21600	18100	10200	14100	5860	3360
15	3860	5000	102000	7160	26100	14200	19800	18800	9750	12000	5840	3450
16	3840	8950	69000	6480	79500	13600	24200	19200	9470	11000	5610	3570
17	3640	11100	49300	5710	71500	13900	33800	18000	8900	11600	5150	3920
18	2920	8620	36800	5900	48800	14400	14190	16400	8510	10900	5230	3600
19	3340	7260	28100	6360	36300	13500	37900	15300	9350	15500	5310	3330
20	4010	6120	23800	6250	28600	13400	34600	14100	9470	13800	5010	3210
21	4430	7790	19300	5720	27400	14300	32900	16000	8640	13500	4900	3310
22	4100	10400	20800	5210	24400	17100	28300	14700	7310	12000	4880	3280
23	3980	9980	23100	5470	21200	20800	24900	14600	6330	9470	4930	3220
24	7300	9630	19200	5550	22600	20100	23600	15200	5970	8400	5430	3220
25	9260	12500	16000	7000	23400	17300	22400	15700	13300	8550	4980	3240
26	7030	17800	12300	8960	20800	15400	21200	14900	13000	8190	4750	3160
27	5480	17300	10900	9590	18300	14600	19500	14400	9270	10100	4540	3240
28	4770	15700	12000	9280	18800	15000	17800	13300	7640	11400	4210	3380
29	4470	20800	23900	8260	19400	20600	16400	26000	6800	9970	4080	3400
30	4180	21300	20900	6890	---	20700	14700	130000	6110	9180	4030	3180
31	3620	---	17500	6160	---	19500	---	129000	---	8180	4270	---
TOTAL	124940	245140	862200	250520	605700	456980	1047000	829500	552820	494040	182620	110020
MEAN	4030	8171	27810	8081	20890	14740	34900	26760	18430	15940	5891	3667
MAX	9260	21300	102000	15300	79500	20800	121000	130000	96200	49300	7910	4880
MIN	2810	3380	10900	5210	5080	8910	14700	12600	5970	8180	4030	3160

CAL YR 1983 TOTAL 5354360 MEAN14670 MAX29000 MIN 2470
WTR YR 1984 TOTAL 5761480 MEAN15740 MAX30000 MIN 2810

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1978, February 1980 to August 1982, April 1983 to current year.
WATER TEMPERATURES: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.3 August 9, 10, 1983; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 18.4 mg/L January 10, 1980; minimum, 4.0 mg/L Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 285 micromhos Jan. 26; minimum, 63 micromhos July 7.
pH: Maximum, 9.9 June 12, 13; minimum, 6.9 July 7.
WATER TEMPERATURES: Maximum, 29.0°C Aug. 16; minimum 0.0°C on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 15.2 mg/L Dec. 31; minimum, 6.7 mg/L Sept. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 14...	1330	92400	104	7.4	6.5	55	12.0	98	4.8	>1200	K3700
FEB 13...	1400	9650	200	--	4.0	14	13.7	102	1.9	--	>400
MAY 03...	1200	12500	152	7.8	13.5	1.3	11.4	109	1.6	K20	K1300
JUN 26...	1130	12800	167	7.9	22.0	40	7.8	89	3.5	--	1000
AUG 31...	1200	4250	238	8.5	25.5	1.5	9.4	115	3.9	K90	500

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC 14...	39	11	2.8	4.6	1.3	22	17	6.8	<.10	4.4	63
FEB 13...	66	17	5.8	11	1.5	40	24	18	<.10	4.9	122
MAY 03...	54	14	4.6	6.6	1.0	33	20	11	.10	2.7	121
JUN 26...	61	16	5.0	6.2	1.6	41	20	9.1	.10	4.1	114
AUG 31...	88	22	7.9	9.3	1.6	61	28	14	.10	3.4	158

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
DEC 14...	343	85600	52	1.2	.230	1.8	.110	.050	.020	--
FEB 13...	24	625	67	1.3	.290	.80	.130	.080	.050	--
MAY 03...	2	68	14	.79	.030	.80	.110	.040	.020	2.0
JUN 26...	108	3730	96	1.0	.080	1.4	.200	.010	.040	3.7
AUG 31...	5	57	60	1.4	.080	.60	.180	.070	.060	1.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC 14...	1330	40	1	29	<.5	<1	7	<3	2	31
FEB 13...	1400	20	1	38	<.5	<1	<1	<3	3	46
MAY 03...	1200	20	1	36	<1	<1	<1	<3	4	39
JUN 26...	1130	50	1	33	<1	<1	<1	<3	5	65
AUG 31...	1200	50	2	37	<1	1	1	<3	3	23

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC 14...	1	5	13	.1	<10	3	<1	<1	46	<6
FEB 13...	2	<4	25	<.1	<10	3	<1	<1	72	<6
MAY 03...	1	<4	15	.4	<10	3	<1	<1	58	<6
JUN 26...	3	6	3	.2	<10	2	<1	<1	70	<6
AUG 31...	6	6	2	.1	<10	2	<1	<1	84	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
DEC 14...	40	--	--	--	--	--	--	--	--
FEB 13...	23	--	--	--	--	--	--	--	--
MAY 03...	19	<1.8	<.4	1.7	<.4	1.4	<.4	<.02	.03
JUN 26...	12	<1.9	5.4	2.2	3.9	1.9	3.4	.09	.03
AUG 31...	13	<2.6	.6	<1.9	.7	<1.7	.7	.06	.10

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
16...	1410	9330	56	1410	--
DEC					
14...	1320	92300	308	76700	--
14...	1330	92400	343	85600	52
15...	1520	99600	155	41700	--
FEB					
13...	1400	9650	24	625	67
28...	1440	19700	6	320	--
MAR					
30...	1245	20000	10	540	--
APR					
05...	1700	67100	352	63800	--
05...	2000	73600	330	65600	--
06...	0145	98800	485	129000	--
06...	1100	125000	566	191000	--
06...	1545	131000	505	179000	--
MAY					
03...	1200	12500	2	68	14
31...	1040	129000	213	74400	--
31...	1500	125000	168	56700	--
JUN					
26...	1130	12800	108	3730	96
AUG					
31...	1200	4250	5	57	60

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	17.5	17.5	11.0	9.0	10.0	6.0	5.0	5.5	.0	.0	.0
2	20.0	18.0	18.5	11.5	9.0	10.5	5.0	4.5	4.5	.5	.0	.5
3	21.5	18.0	19.5	11.5	10.5	11.0	4.5	4.0	4.0	.5	.5	.5
4	22.0	19.0	20.5	10.5	9.0	10.0	4.5	4.0	4.0	1.5	1.0	1.0
5	23.0	20.0	21.0	10.0	8.0	9.0	5.0	4.0	4.5	2.0	1.5	2.0
6	22.0	19.5	20.5	9.0	7.5	8.5	6.0	5.0	5.0	2.0	2.0	2.0
7	21.0	18.5	19.5	10.0	7.5	8.5	6.0	5.0	5.5	3.0	2.0	2.5
8	20.5	17.5	19.0	10.5	8.0	9.5	5.0	4.0	4.5	2.0	1.0	1.5
9	20.5	17.5	19.0	11.0	8.5	9.5	4.0	3.0	3.5	1.5	1.0	1.5
10	18.5	17.5	18.0	10.5	9.5	10.0	4.0	3.5	4.0	2.0	1.0	1.5
11	17.0	16.5	17.0	11.0	10.0	10.5	4.0	3.5	3.5	2.0	1.0	1.0
12	17.5	16.5	17.0	10.0	7.5	8.5	5.5	4.0	4.5	1.0	.0	.5
13	19.5	17.5	18.5	8.5	6.5	7.5	7.0	5.5	6.5	.0	.0	.0
14	19.5	17.5	18.5	7.5	7.0	7.0	7.0	6.0	6.5	.5	.0	.0
15	18.5	16.0	17.0	8.0	7.0	7.5	6.0	6.0	6.0	1.0	.0	.5
16	18.0	15.0	16.5	9.0	8.0	8.5	6.0	6.0	6.0	.5	.0	.0
17	17.0	15.0	16.0	8.0	7.0	7.5	6.0	5.0	5.5	.5	.0	.0
18	16.5	15.0	16.0	7.5	6.5	7.0	5.0	4.0	4.5	.0	.0	.0
19	16.0	14.5	15.5	8.0	7.0	7.5	4.0	3.0	3.5	1.5	.0	.5
20	15.0	13.5	14.0	9.5	7.5	8.5	3.0	2.0	2.5	.5	.0	.0
21	15.0	12.5	13.5	10.5	9.5	10.0	2.0	1.0	1.5	.5	.0	.0
22	14.0	12.0	13.0	10.0	9.0	9.5	2.0	1.0	1.5	.0	.0	.0
23	13.0	12.5	13.0	10.0	9.5	9.5	1.5	1.0	1.0	.0	.0	.0
24	14.0	13.0	13.5	10.0	9.5	9.5	1.0	.0	.5	.0	.0	.0
25	13.0	12.5	12.5	10.0	7.5	9.0	.0	.0	.0	1.0	.0	.5
26	13.5	12.0	12.5	8.0	7.0	7.5	.0	.0	.0	2.5	1.0	2.0
27	12.5	11.0	12.0	7.5	7.0	7.5	.0	.0	.0	3.0	2.0	2.5
28	13.0	10.5	11.5	7.5	7.0	7.5	.0	.0	.0	2.5	1.5	2.0
29	13.0	11.0	12.0	7.5	7.0	7.5	.5	.5	.5	1.5	1.5	1.5
30	12.0	10.0	11.0	7.0	6.0	6.5	.5	.0	.0	2.0	1.0	1.5
31	11.5	9.0	10.0	---	---	---	.0	.0	.0	2.5	1.5	2.0
MONTH	23.0	9.0	16.0	11.5	6.0	8.5	7.0	.0	3.0	3.0	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.5	1.0	3.0	2.5	2.5	7.0	5.0	6.0	16.0	14.5	15.0
2	1.5	.0	.5	2.5	1.5	2.0	8.0	6.5	7.0	15.5	14.5	15.0
3	2.5	.0	1.5	2.5	1.5	2.0	9.5	7.5	8.5	15.0	14.0	14.5
4	2.0	1.5	2.0	3.0	1.5	2.0	9.0	8.5	8.5	14.0	13.5	13.5
5	2.5	2.0	2.0	2.5	2.5	2.5	9.0	8.5	9.0	14.0	12.5	13.5
6	3.0	2.0	2.0	3.5	2.5	3.0	8.5	6.5	7.5	13.5	13.0	13.0
7	2.0	1.0	1.5	4.5	3.0	4.0	6.5	6.5	6.5	13.0	12.5	13.0
8	1.5	.5	1.0	4.0	3.0	3.5	7.0	6.0	6.5	14.0	13.0	13.5
9	2.0	1.0	1.5	3.0	2.0	2.5	7.5	6.5	7.0	14.0	13.0	13.5
10	3.0	1.5	2.0	3.0	1.5	2.5	8.5	7.0	7.5	14.0	12.5	13.5
11	3.5	2.5	3.0	3.0	2.0	2.5	9.0	7.5	8.5	14.5	12.5	13.5
12	4.5	3.5	4.0	3.0	1.0	2.0	10.5	8.5	9.5	15.0	14.0	14.5
13	4.5	4.0	4.0	2.5	2.0	2.0	11.0	10.0	10.5	16.0	14.0	15.0
14	5.5	4.5	5.0	3.0	1.5	2.5	10.5	9.5	10.0	16.0	15.0	15.0
15	6.0	5.5	5.5	4.0	2.0	3.0	9.5	9.0	9.5	15.0	14.0	14.5
16	5.5	1.0	2.5	5.0	3.5	4.5	9.0	9.0	9.0	14.0	13.0	13.5
17	4.0	2.5	3.5	5.5	4.5	5.0	9.5	8.5	9.0	13.0	12.0	12.5
18	5.0	4.0	4.5	6.0	5.0	5.5	9.5	9.0	9.5	13.0	12.0	12.0
19	5.5	5.0	5.0	7.0	5.5	6.0	10.0	9.5	9.5	13.5	12.0	12.5
20	5.5	5.0	5.5	8.0	6.0	7.0	10.5	9.5	10.0	15.0	13.0	14.0
21	5.5	4.5	5.0	7.5	7.0	7.5	11.0	9.5	10.0	17.0	14.5	16.0
22	5.5	4.5	5.0	7.5	6.5	7.0	10.0	9.5	9.5	19.0	16.5	18.0
23	5.0	4.5	4.5	7.0	6.0	6.5	9.5	9.0	9.0	20.0	18.5	19.0
24	6.0	5.0	5.5	6.5	5.0	6.0	9.0	9.0	9.0	19.5	18.0	19.0
25	6.0	5.5	6.0	6.0	5.5	5.5	9.5	9.0	9.0	20.0	18.0	19.0
26	5.5	4.5	5.0	7.5	5.5	6.5	11.0	9.0	10.0	21.0	19.0	20.0
27	5.0	4.5	4.5	8.0	6.5	7.5	12.5	10.5	11.5	20.5	19.5	20.0
28	4.5	4.0	4.0	8.0	6.0	7.0	13.5	12.0	12.5	20.0	18.0	19.0
29	4.0	3.0	3.5	6.0	4.0	4.5	15.0	13.0	14.0	18.0	17.0	17.5
30	---	---	---	4.5	4.0	4.0	15.0	14.5	15.0	17.0	13.5	15.0
31	---	---	---	6.0	4.0	5.0	---	---	---	13.5	13.0	13.5
MONTH	6.0	.0	3.5	8.0	1.0	4.5	15.0	5.0	9.5	21.0	12.0	15.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	24.0	22.0	23.0	24.5	22.5	23.5	25.0	23.0	24.0
2	14.5	13.5	14.0	22.0	21.5	21.5	25.5	23.5	24.5	25.0	22.5	23.5
3	15.0	14.0	14.5	22.5	21.0	21.5	26.0	24.5	25.0	26.5	23.0	24.5
4	16.0	14.5	15.0	22.5	21.0	22.0	27.0	24.5	25.5	24.0	22.0	23.5
5	17.5	15.5	16.5	24.0	22.0	23.0	26.0	25.0	25.5	23.5	21.0	22.0
6	18.5	17.0	17.5	23.0	22.5	22.5	26.5	24.0	25.0	22.5	20.0	21.0
7	20.5	18.0	19.0	22.5	20.5	21.0	27.0	25.0	26.0	22.5	19.0	20.5
8	22.0	19.5	21.0	21.0	20.0	20.5	27.5	25.0	26.0	23.0	19.0	20.5
9	23.5	21.5	22.5	20.5	19.5	20.0	27.5	25.5	26.5	23.0	19.0	21.0
10	25.0	23.0	24.0	20.5	19.5	20.0	26.5	25.5	26.0	23.5	20.5	21.5
11	26.0	24.0	25.0	21.5	19.5	20.5	25.5	24.5	25.0	24.0	20.5	22.0
12	26.5	24.5	25.5	23.0	21.0	22.0	27.0	24.5	25.5	24.0	21.5	22.5
13	27.0	25.0	26.0	23.5	22.0	23.0	27.0	25.0	26.0	24.5	21.0	22.5
14	26.5	25.5	26.0	25.0	22.5	23.5	28.5	25.0	26.5	24.0	22.5	23.5
15	25.5	23.5	24.5	25.5	23.5	24.5	28.5	26.0	27.0	23.0	20.0	21.5
16	24.0	22.5	23.0	26.0	24.5	25.0	29.0	26.0	27.5	21.5	18.0	19.5
17	22.5	21.0	21.5	26.0	24.5	25.0	28.5	25.5	27.0	21.5	18.0	19.5
18	21.0	20.5	21.0	25.5	24.5	25.0	28.0	25.0	26.5	21.0	17.5	19.5
19	23.0	20.0	21.5	24.5	23.5	24.0	26.0	24.0	25.0	21.5	18.0	19.5
20	23.0	21.5	22.0	24.0	22.5	23.0	25.5	23.0	24.0	22.0	18.5	20.0
21	24.0	22.0	23.0	23.5	22.0	22.5	25.5	22.0	23.5	22.5	19.5	21.0
22	25.5	22.5	24.0	23.5	21.5	22.5	25.0	22.0	23.5	22.5	19.0	20.5
23	25.5	23.0	24.0	25.0	23.0	24.0	24.5	22.5	23.5	23.0	19.5	21.0
24	23.5	22.0	23.0	25.5	23.5	24.5	24.5	22.0	23.5	24.0	21.0	22.5
25	23.0	21.5	22.5	25.5	23.5	24.5	25.0	22.0	23.5	23.5	21.5	22.5
26	22.5	21.0	22.0	25.5	23.5	24.5	26.0	22.5	24.0	22.5	19.5	21.5
27	23.5	21.0	22.0	24.0	21.5	23.0	25.0	22.5	24.0	19.5	17.5	18.5
28	24.5	22.5	23.5	22.0	21.0	21.5	25.5	22.5	24.0	17.5	16.0	16.5
29	26.0	23.0	24.5	22.0	21.0	21.5	25.0	23.5	24.0	18.0	15.5	16.5
30	25.0	24.0	24.5	22.0	21.5	21.5	26.0	23.5	24.5	18.5	15.5	17.0
31	---	---	---	24.0	21.0	22.5	26.5	24.0	25.0	---	---	---
MONTH	27.0	13.0	21.5	26.0	19.5	22.5	29.0	22.0	25.0	26.5	15.5	21.0
YEAR	29.0	.0	12.5									

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	221	216	219	206	202	204	123	116	119	148	144	146
2	227	214	224	209	204	206	119	115	116	152	145	148
3	224	215	220	212	208	210	125	119	121	151	148	150
4	216	206	210	216	211	213	129	118	123	154	149	151
5	208	203	207	217	214	216	138	120	132	158	153	155
6	209	207	208	217	210	214	141	138	140	157	151	154
7	211	208	210	216	208	212	147	137	141	158	153	155
8	222	210	218	214	210	213	138	109	126	165	159	162
9	221	212	216	214	207	211	108	102	105	163	162	164
10	212	204	208	214	194	208	112	106	108	172	169	171
11	217	207	212	208	199	205	116	111	113	178	172	175
12	219	204	214	224	207	214	122	116	118	179	171	174
13	215	210	213	224	213	222	122	99	114	183	176	180
14	212	202	207	221	211	216	105	84	96	189	181	185
15	211	207	209	212	163	199	83	75	77	215	188	196
16	209	205	207	178	169	174	81	76	79	195	179	189
17	210	206	207	211	178	197	87	80	84	195	174	188
18	216	211	215	183	172	175	93	88	90	195	192	194
19	215	200	205	179	174	176	102	93	98	204	195	200
20	202	197	199	181	177	179	107	102	105	195	186	192
21	207	202	205	178	169	175	113	106	109	202	187	196
22	206	200	203	188	173	181	122	105	114	207	187	201
23	202	186	196	181	160	168	151	117	138	206	204	205
24	190	177	185	158	151	154	139	133	135	206	198	202
25	201	175	191	149	141	146	148	135	140	222	206	212
26	194	188	190	153	141	150	149	140	145	285	225	246
27	197	193	195	148	132	139	157	145	150	283	232	257
28	199	193	196	130	125	127	158	145	156	231	203	217
29	209	200	204	132	124	128	174	129	149	205	196	201
30	209	206	208	134	124	130	169	146	154	196	185	190
31	209	205	207	---	---	---	155	147	151	202	188	196
MONTH	227	175	207	224	124	185	174	75	121	285	144	186

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	211	203	207	142	137	139	152	138	143	145	138	141
2	221	210	217	142	139	140	156	142	150	143	137	140
3	219	216	217	145	141	144	155	150	153	139	137	138
4	226	186	203	151	145	148	152	146	149	144	121	136
5	208	193	201	155	149	152	145	96	115	137	109	121
6	192	185	187	166	155	160	116	76	86	108	105	106
7	194	185	189	172	164	169	85	76	80	113	108	110
8	195	192	194	165	163	164	88	85	86	120	115	117
9	193	179	185	163	160	162	91	85	88	128	120	125
10	181	177	179	170	161	165	103	88	95	127	124	125
11	185	179	181	179	169	173	121	102	111	123	120	122
12	190	182	186	181	172	176	130	120	126	129	122	124
13	192	183	188	205	174	183	130	120	125	133	129	130
14	183	180	182	218	146	162	129	120	125	138	134	136
15	181	152	164	184	144	163	132	128	130	134	130	132
16	150	84	106	187	178	183	134	131	133	131	124	127
17	84	82	83	184	176	181	133	123	128	126	124	125
18	90	83	87	184	177	182	122	111	118	129	125	127
19	95	90	93	178	172	174	110	102	105	134	129	131
20	106	97	101	176	171	174	121	101	112	140	133	137
21	106	104	105	174	168	172	133	120	126	148	139	142
22	108	103	105	167	159	163	148	132	141	151	148	149
23	115	108	111	162	139	149	152	132	144	150	139	146
24	125	116	121	138	132	134	130	121	124	150	140	144
25	131	126	129	135	130	133	125	120	122	149	140	145
26	126	120	123	139	135	137	126	123	124	140	136	139
27	127	125	126	140	139	140	127	123	125	145	137	140
28	137	129	131	142	137	139	131	126	128	147	141	145
29	141	132	135	146	134	140	134	130	131	144	109	134
30	---	---	---	154	141	146	144	135	141	118	71	89
31	---	---	---	155	148	150	---	---	---	75	72	74
MONTH	226	82	153	218	130	158	156	76	122	151	71	129

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	80	76	78	234	185	224	199	188	193	249	235	241
2	92	81	86	174	137	148	199	192	195	250	228	239
3	100	94	98	135	103	111	204	197	199	231	223	227
4	108	101	105	115	103	108	207	193	200	233	219	228
5	115	108	111	120	115	117	200	196	198	237	233	235
6	129	115	121	139	122	129	202	184	191	240	233	238
7	137	130	133	142	63	111	210	204	207	237	231	234
8	146	138	141	146	129	140	211	205	207	239	234	236
9	151	147	150	142	133	136	212	198	205	244	236	239
10	159	153	157	148	134	139	205	200	202	249	245	247
11	169	158	165	161	150	156	210	204	207	252	248	249
12	176	170	173	169	160	165	209	202	205	254	251	252
13	183	176	180	169	158	164	216	209	213	253	250	251
14	187	177	182	170	161	164	224	213	219	256	253	254
15	191	185	188	174	163	168	227	223	225	257	241	251
16	188	182	185	183	174	179	227	217	223	259	255	257
17	186	182	184	191	182	185	223	218	221	262	258	260
18	191	184	186	183	177	180	230	220	226	261	259	260
19	201	191	198	189	172	182	231	223	228	259	233	244
20	200	195	197	169	160	163	224	220	222	233	229	231
21	194	187	190	166	157	163	224	219	222	239	233	235
22	194	186	189	173	155	164	226	224	225	248	241	246
23	209	195	201	190	174	180	228	226	227	251	247	249
24	218	209	213	202	190	196	226	222	224	252	249	251
25	222	198	212	208	203	205	230	223	227	254	250	252
26	201	164	175	208	198	201	229	222	225	254	252	253
27	190	169	180	203	142	178	232	228	230	254	248	251
28	204	191	198	203	176	192	235	228	231	252	242	245
29	217	204	211	195	192	193	240	235	237	247	241	244
30	225	218	221	194	190	192	241	238	239	250	247	248
31	---	---	---	192	186	189	240	231	235	---	---	---
MONTH	225	76	167	234	63	165	241	184	216	262	219	245
YEAR	285	63	171									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	12.0	11.8	11.9	15.0	14.3	14.5
2				12.5	12.4	12.4	12.4	12.0	12.2	14.4	14.2	14.3
3				12.4	12.0	12.2	12.5	12.2	12.4	14.6	14.3	14.4
4				12.4	12.0	12.2	12.4	12.1	12.2	14.0	13.5	13.7
5				12.3	12.0	12.1	12.3	12.1	12.2	13.5	13.1	13.3
6				12.1	11.8	12.0	12.2	11.7	12.0	13.1	12.6	12.9
7				12.2	11.9	12.1	11.9	11.7	11.8	12.7	12.5	12.6
8				12.0	11.6	11.8	12.4	12.0	12.2	12.8	12.6	12.7
9				12.0	11.8	11.9	12.7	12.5	12.7	13.2	12.9	13.1
10				12.1	11.7	11.9	12.8	12.7	12.7	13.2	12.9	13.1
11				12.2	11.7	12.0	12.9	12.8	12.8	13.2	13.0	13.1
12				12.2	12.0	12.1	12.8	12.3	12.6	13.8	13.2	13.6
13				12.2	11.9	12.1	12.3	11.6	11.9	13.8	13.7	13.7
14				12.2	12.0	12.1	11.9	11.8	11.9	13.8	13.6	13.7
15				12.1	10.1	11.4	12.1	12.0	12.0	13.7	13.5	13.6
16				10.2	9.8	10.0	12.3	12.1	12.2	13.7	13.5	13.6
17				10.4	9.9	10.1	12.7	12.3	12.5	13.7	13.5	13.6
18				11.1	10.4	10.8	13.0	12.7	12.9	13.6	13.5	13.6
19				11.7	10.9	11.1	13.3	13.1	13.2	13.5	13.3	13.4
20				12.0	10.8	11.2	13.7	13.3	13.5	13.8	13.4	13.6
21				10.9	10.3	10.6	14.2	13.8	14.1	14.1	13.8	13.9
22				10.7	10.3	10.5	14.2	13.5	13.7	14.3	14.1	14.2
23				10.7	10.4	10.6	13.8	13.5	13.7	14.3	14.1	14.2
24				10.9	10.6	10.8	13.9	13.8	13.9	14.1	13.7	13.9
25				11.0	10.5	10.8	14.4	13.9	14.2	13.7	13.2	13.4
26				11.4	11.1	11.2	14.7	14.3	14.4	13.3	13.1	13.2
27				11.8	11.4	11.6	14.5	14.4	14.4	13.4	13.2	13.3
28				11.8	11.7	11.8	14.8	14.2	14.4	13.5	13.2	13.3
29				11.8	11.5	11.6	14.8	14.3	14.4	13.5	13.3	13.4
30				12.2	11.6	11.8	14.8	14.5	14.7	13.9	13.5	13.7
31				---	---	---	15.2	14.6	14.9	14.0	13.6	13.8
MONTH				12.5	9.8	11.5	15.2	11.6	13.1	15.0	12.5	13.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.3	13.8	14.0	12.8	12.4	12.7	14.1	12.5	13.2	10.6	9.2	9.7
2	14.6	14.0	14.3	13.2	12.8	13.0	14.4	12.5	13.4	11.1	9.3	10.1
3	14.6	13.9	14.2	13.3	13.0	13.2	---	---	---	10.5	9.4	9.9
4	13.8	13.3	13.5	13.5	13.2	13.3	---	---	---	9.7	9.4	9.5
5	13.2	12.9	13.0	13.2	12.8	13.0	---	---	---	9.8	9.4	9.7
6	13.1	12.8	13.0	12.9	12.7	12.8	---	---	---	10.1	9.9	10.0
7	13.7	13.0	13.4	13.0	12.7	12.8	---	---	---	10.3	10.1	10.2
8	14.2	13.5	13.8	13.1	12.6	12.8	---	---	---	10.2	9.9	10.0
9	14.3	13.7	14.0	13.4	12.7	13.1	---	---	---	10.1	9.8	9.9
10	14.3	13.7	13.9	13.8	13.1	13.4	---	---	---	10.3	9.9	10.1
11	13.8	13.2	13.5	13.8	13.2	13.5	---	---	---	10.4	9.7	10.1
12	13.5	12.7	13.1	14.2	13.3	13.7	---	---	---	9.7	9.3	9.6
13	13.1	12.6	12.8	13.8	13.3	13.5	---	---	---	10.1	9.3	9.6
14	12.9	12.4	12.6	13.4	13.1	13.2	---	---	---	10.1	9.2	9.6
15	12.4	12.0	12.2	13.6	13.2	13.4	---	---	---	10.8	9.7	10.2
16	13.0	12.1	12.8	13.4	12.9	13.1	---	---	---	11.1	10.0	10.5
17	13.0	12.6	12.8	13.2	12.5	12.8	---	---	---	11.6	10.2	10.9
18	12.6	12.4	12.5	13.4	12.5	12.9	---	---	---	11.3	10.4	10.8
19	12.4	12.2	12.3	13.6	12.5	13.0	---	---	---	11.8	10.2	10.8
20	12.2	12.1	12.1	13.9	12.4	13.1	---	---	---	11.9	10.1	10.8
21	12.2	12.1	12.1	12.6	11.7	12.1	---	---	---	10.0	8.6	9.3
22	12.4	12.1	12.3	12.8	11.8	12.3	---	---	---	9.3	8.5	8.8
23	12.4	12.2	12.3	12.8	11.9	12.4	---	---	---	9.4	8.2	8.6
24	12.2	11.8	12.0	13.6	12.4	13.0	---	---	---	9.9	8.3	9.0
25	11.8	11.7	11.8	13.1	12.4	12.8	10.5	10.3	10.4	10.1	8.7	9.3
26	12.2	11.7	12.0	14.3	12.3	13.3	10.7	10.3	10.5	10.3	8.7	9.4
27	12.5	12.1	12.3	14.5	12.4	13.4	10.5	10.0	10.4	9.0	8.5	8.7
28	12.3	12.1	12.2	12.7	12.0	12.3	10.4	9.8	10.1	8.9	8.5	8.7
29	12.4	12.1	12.3	12.5	12.0	12.2	10.4	9.7	9.9	9.1	8.8	9.0
30	---	---	---	13.3	12.5	12.8	9.9	9.2	9.5	10.0	9.2	9.6
31	---	---	---	13.9	12.2	13.0	---	---	---	10.3	10.1	10.2
MONTH	14.6	11.7	12.9	14.5	11.7	13.0	14.4	9.2	10.9	11.9	8.2	9.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.3	10.3	10.3	8.2	7.3	7.7	10.9	8.2	9.4	10.4	7.0	8.6
2	10.3	10.1	10.2	7.6	7.4	7.5	11.4	7.9	9.4	10.6	7.3	8.7
3	10.2	10.1	10.2	7.8	7.4	7.6	11.6	7.7	9.4	10.9	7.3	8.8
4	10.2	10.0	10.1	7.6	7.5	7.5	12.1	7.4	9.5	8.4	7.0	7.6
5	9.9	9.4	9.8	8.1	7.5	7.8	---	---	---	9.8	7.4	8.4
6	9.8	9.4	9.5	7.6	7.2	7.4	---	---	---	9.9	7.8	8.7
7	9.8	9.3	9.5	7.6	7.2	7.5	---	---	---	10.8	8.0	9.2
8	10.0	9.0	9.4	7.9	7.6	7.8	---	---	---	11.1	8.4	9.5
9	10.5	8.7	9.5	8.2	8.0	8.1	---	---	---	11.2	8.3	9.6
10	11.3	8.4	9.7	8.3	8.1	8.2	---	---	---	11.1	8.2	9.3
11	12.1	8.3	10.0	8.4	8.0	8.2	---	---	---	11.1	8.0	9.3
12	12.8	8.3	10.4	8.1	7.8	8.0	---	---	---	10.9	7.9	9.1
13	13.6	8.3	10.7	8.0	7.7	7.9	---	---	---	10.9	7.5	8.9
14	12.4	7.9	10.0	8.5	7.8	8.1	---	---	---	9.7	7.2	8.2
15	11.2	8.1	9.6	9.0	7.7	8.3	---	---	---	8.1	6.7	7.4
16	10.8	7.8	9.2	9.3	7.8	8.4	---	---	---	9.8	7.3	8.4
17	8.9	7.8	8.3	8.4	7.6	8.0	11.6	6.9	9.1	10.3	7.8	8.9
18	9.0	7.6	8.3	8.1	7.3	7.6	11.6	7.1	9.2	10.9	8.0	9.3
19	10.0	7.7	8.8	7.6	7.4	7.5	10.1	7.3	8.5	11.2	8.1	9.4
20	10.5	7.8	9.1	8.2	7.5	7.8	10.7	7.2	8.9	11.4	8.0	9.4
21	11.5	8.0	9.7	8.0	7.7	7.8	10.8	7.7	9.1	11.3	7.8	9.3
22	12.7	7.9	10.1	8.3	7.8	8.0	11.0	7.8	9.2	11.7	7.9	9.5
23	13.1	7.9	10.2	9.2	7.9	8.4	10.0	7.8	8.7	12.0	7.9	9.6
24	11.8	7.7	9.3	9.8	7.9	8.7	10.4	7.7	8.9	11.3	7.7	9.1
25	8.5	7.0	7.5	10.2	8.0	9.0	10.2	7.6	8.9	10.9	7.3	8.8
26	7.2	7.0	7.1	10.9	8.2	9.4	10.7	7.6	9.0	---	---	---
27	8.4	7.2	7.7	8.8	7.7	8.1	10.8	7.7	9.1	---	---	---
28	10.2	7.5	8.7	8.3	7.7	8.0	11.4	7.8	9.4	---	---	---
29	11.5	7.6	9.4	9.2	8.2	8.7	10.8	7.8	9.1	---	---	---
30	10.6	7.4	8.8	9.6	8.4	8.9	10.6	7.6	8.7	---	---	---
31	---	---	---	10.8	8.6	9.5	10.5	6.9	8.5	---	---	---
MONTH	13.6	7.0	9.4	10.9	7.2	8.1	12.1	6.9	9.1	12.0	6.7	8.9
YEAR	15.2	6.7	11.0									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.0	8.2	8.8	7.7	8.2	8.1	8.1	8.1	8.2	7.9	8.0
2	8.9	7.9	8.3	8.7	7.5	8.0	8.1	8.1	8.1	8.1	7.8	8.0
3	9.2	8.0	8.5	8.3	7.3	7.6	8.2	8.1	8.1	8.0	7.9	7.9
4	9.3	8.0	8.5	8.5	7.2	7.8	8.2	8.0	8.1	8.0	7.9	7.9
5	9.3	8.0	8.5	8.8	7.6	8.1	8.1	8.0	8.1	8.0	7.9	7.9
6	9.3	7.9	8.5	8.8	7.6	8.1	8.2	8.1	8.1	7.9	7.9	7.9
7	9.3	8.0	8.6	8.9	7.6	8.1	8.2	8.1	8.1	8.0	7.9	8.0
8	9.4	8.0	8.8	9.1	7.6	8.2	8.1	8.0	8.1	8.0	8.0	8.0
9	9.4	8.3	8.8	9.1	7.5	8.2	7.9	7.9	7.9	8.0	8.0	8.0
10	9.2	8.1	8.6	8.3	7.4	7.8	7.9	7.9	7.9	8.1	8.0	8.1
11	8.6	8.0	8.2	8.1	7.4	7.6	8.0	7.9	8.0	8.1	8.1	8.1
12	8.3	7.9	8.1	8.2	7.5	7.8	8.0	7.9	8.0	8.2	8.1	8.2
13	8.6	7.8	8.1	8.4	7.7	7.9	7.9	7.7	7.8	8.3	8.1	8.1
14	8.8	7.8	8.2	8.1	7.7	7.8	7.8	7.5	7.6	8.2	8.1	8.1
15	9.0	7.9	8.4	8.0	7.6	7.8	7.5	7.3	7.4	8.2	8.1	8.2
16	9.1	7.9	8.4	7.7	7.4	7.6	7.4	7.3	7.4	8.2	8.2	8.2
17	9.1	8.0	8.5	7.9	7.6	7.8	7.4	7.3	7.3	8.3	8.1	8.2
18	9.2	7.9	8.5	8.0	7.7	7.9	7.4	7.3	7.4	8.2	8.1	8.2
19	9.0	7.9	8.3	8.2	7.9	8.0	7.5	7.4	7.4	8.3	8.2	8.2
20	9.0	7.8	8.3	8.5	8.0	8.2	7.6	7.5	7.5	8.5	8.2	8.3
21	9.0	7.8	8.3	8.3	8.0	8.1	7.8	7.6	7.7	8.5	8.2	8.3
22	9.1	7.9	8.4	8.3	8.1	8.2	7.8	7.5	7.7	8.3	8.2	8.3
23	8.5	7.9	8.1	8.3	8.2	8.3	7.8	7.6	7.8	8.3	8.2	8.3
24	7.9	7.6	7.7	8.3	8.3	8.3	8.1	7.7	7.8	8.3	8.2	8.3
25	7.7	7.6	7.6	8.4	8.3	8.4	8.5	7.8	7.9	8.3	8.3	8.3
26	8.0	7.6	7.7	8.5	8.4	8.4	7.9	7.8	7.9	8.3	8.3	8.3
27	8.3	7.7	7.9	8.5	8.4	8.5	8.1	7.9	8.0	8.3	8.2	8.2
28	8.6	7.4	8.0	8.5	8.3	8.4	8.5	7.9	8.0	8.2	8.2	8.2
29	8.6	7.7	8.1	8.4	8.1	8.2	7.9	7.8	7.8	8.2	8.2	8.2
30	8.8	7.7	8.1	8.1	8.0	8.1	8.0	7.8	7.9	8.4	8.2	8.3
31	8.9	7.8	8.2	---	---	---	8.3	7.6	8.0	8.5	8.3	8.4
MONTH	9.4	7.4	8.3	9.1	7.2	8.1	8.5	7.3	7.8	8.5	7.8	8.2

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.4	8.3	8.4	8.5	8.4	8.4	8.9	8.1	8.5	8.3	7.5	7.9
2	8.5	8.3	8.4	8.5	8.4	8.5	9.0	8.2	8.6	8.6	7.7	8.1
3	8.5	8.3	8.4	8.5	8.4	8.5	9.3	8.3	8.8	8.2	7.8	7.9
4	8.3	8.1	8.2	8.5	8.4	8.5	8.8	8.2	8.4	7.8	7.5	7.7
5	8.1	8.1	8.1	8.5	8.4	8.4	8.2	7.8	7.9	7.7	7.5	7.6
6	8.1	8.0	8.1	8.5	8.3	8.4	8.0	7.6	7.7	7.6	7.5	7.5
7	8.3	8.1	8.2	8.6	8.4	8.5	7.7	7.6	7.6	7.7	7.5	7.6
8	8.4	8.3	8.3	8.6	8.5	8.5	7.8	7.7	7.8	7.7	7.6	7.6
9	8.4	8.2	8.3	8.5	8.4	8.5	7.8	7.8	7.8	7.7	7.6	7.7
10	8.4	8.2	8.3	8.6	8.4	8.5	7.9	7.8	7.9	7.8	7.7	7.7
11	8.4	8.2	8.3	8.7	8.5	8.6	7.9	7.9	7.9	7.8	7.6	7.7
12	8.4	8.2	8.2	8.7	8.5	8.6	8.0	7.9	8.0	7.7	7.6	7.6
13	8.2	8.1	8.2	8.6	8.4	8.5	8.1	8.0	8.1	7.9	7.6	7.7
14	8.3	8.1	8.2	8.4	8.1	8.2	8.1	8.0	8.1	8.0	7.7	7.8
15	8.2	7.9	8.0	8.4	8.1	8.3	8.1	8.1	8.1	8.2	7.8	8.0
16	8.0	7.4	7.6	8.5	8.3	8.4	8.1	8.0	8.1	7.9	7.8	7.8
17	7.5	7.4	7.4	8.6	8.4	8.5	8.0	7.8	7.9	8.5	7.8	8.1
18	7.6	7.5	7.5	8.8	8.4	8.6	7.8	7.6	7.7	8.2	7.8	8.0
19	7.7	7.6	7.6	9.1	8.4	8.7	7.6	7.6	7.6	8.7	7.8	8.1
20	7.8	7.7	7.7	9.3	8.6	8.9	7.7	7.6	7.7	8.8	7.9	8.3
21	7.8	7.8	7.8	8.9	8.3	8.6	7.7	7.6	7.7	8.1	7.7	7.9
22	7.8	7.8	7.8	8.7	8.3	8.5	7.6	7.5	7.5	8.0	7.8	7.9
23	7.9	7.8	7.9	8.5	8.2	8.4	7.5	7.5	7.5	8.1	7.9	7.9
24	8.0	8.0	8.0	8.9	8.2	8.5	7.7	7.5	7.6	8.3	7.9	8.1
25	8.1	8.1	8.1	8.5	8.1	8.3	7.7	7.6	7.7	8.4	8.0	8.1
26	8.2	8.2	8.2	9.4	8.2	8.8	7.9	7.7	7.8	8.6	8.0	8.2
27	8.3	8.3	8.3	9.6	8.4	9.1	7.9	7.7	7.8	8.1	8.0	8.0
28	8.4	8.3	8.4	9.1	8.2	8.5	7.9	7.7	7.8	8.2	8.1	8.1
29	8.4	8.4	8.4	8.2	7.9	8.0	7.9	7.7	7.8	8.1	7.7	8.0
30	---	---	---	8.4	8.1	8.2	7.9	7.6	7.7	7.9	7.3	7.6
31	---	---	---	9.0	8.1	8.5	---	---	---	7.4	7.3	7.3
MONTH	8.5	7.4	8.1	9.6	7.9	8.5	9.3	7.5	7.9	8.8	7.3	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.2	7.3	8.4	7.8	8.1	9.2	8.3	8.7	9.0	8.0	8.5
2	7.3	7.2	7.2	7.7	7.5	7.6	9.3	8.3	8.8	9.1	8.1	8.5
3	7.3	7.2	7.3	7.7	7.5	7.5	9.3	8.3	8.8	9.2	8.1	8.6
4	7.4	7.2	7.2	7.6	7.4	7.5	9.4	8.3	8.9	8.6	8.0	8.2
5	7.3	7.3	7.3	7.9	7.5	7.7	9.0	8.2	8.6	8.8	7.9	8.3
6	7.5	7.2	7.3	7.7	7.5	7.6	9.0	7.8	8.3	8.9	8.1	8.4
7	7.5	7.4	7.5	7.7	6.9	7.4	9.2	8.1	8.7	9.0	8.1	8.5
8	8.5	7.5	8.0	7.6	7.5	7.6	9.2	8.2	8.8	9.1	8.1	8.6
9	9.1	8.2	8.6	7.6	7.6	7.6	9.2	8.1	8.7	9.2	8.1	8.6
10	9.5	8.3	8.9	7.7	7.6	7.6	8.9	8.1	8.5	9.1	8.1	8.6
11	9.5	8.5	9.0	7.8	7.6	7.7	8.7	7.8	8.2	9.1	8.0	8.5
12	9.9	8.6	9.2	7.8	7.7	7.7	8.9	7.8	8.3	9.0	8.1	8.5
13	9.9	8.7	9.4	7.8	7.6	7.7	9.0	7.8	8.3	9.1	8.1	8.6
14	9.3	8.4	8.8	8.0	7.7	7.8	9.0	7.9	8.5	8.9	8.1	8.5
15	9.4	8.7	9.1	8.4	7.7	8.0	9.1	8.0	8.6	8.3	7.9	8.1
16	9.4	9.0	9.2	8.6	8.0	8.2	9.1	8.1	8.7	8.7	7.9	8.2
17	9.0	8.4	8.8	8.3	8.0	8.1	9.2	8.1	8.7	8.8	8.0	8.4
18	8.7	8.2	8.4	8.2	7.9	8.0	9.1	8.2	8.7	9.0	8.0	8.5
19	9.0	8.1	8.6	8.1	7.8	7.9	8.9	8.2	8.6	9.1	8.1	8.6
20	9.2	8.2	8.7	8.0	7.7	7.9	9.0	7.9	8.5	9.2	8.1	8.7
21	9.4	8.5	9.0	7.9	7.7	7.8	9.0	8.1	8.6	9.3	8.2	8.7
22	9.6	8.8	9.2	8.0	7.7	7.8	9.1	8.1	8.6	9.3	8.2	8.8
23	9.7	8.9	9.3	8.5	7.9	8.1	8.9	8.2	8.5	9.3	8.3	8.8
24	9.6	8.7	9.2	8.8	8.1	8.4	9.0	8.1	8.5	9.2	8.2	8.7
25	8.6	7.8	8.2	9.0	8.2	8.6	8.9	8.0	8.5	9.2	8.0	8.6
26	7.9	7.8	7.8	9.2	8.4	8.8	9.1	8.0	8.5	8.9	8.0	8.3
27	8.2	7.8	7.9	8.7	7.6	8.1	9.1	8.0	8.6	8.9	7.9	8.4
28	9.0	8.0	8.4	8.0	7.8	7.9	9.2	8.1	8.7	8.5	7.9	8.2
29	9.3	8.1	8.7	8.3	7.9	8.1	9.1	8.1	8.6	8.9	7.8	8.2
30	9.2	8.3	8.7	8.6	8.1	8.3	9.1	8.0	8.5	9.1	7.9	8.4
31	---	---	---	9.1	8.2	8.6	9.1	8.0	8.5	---	---	---
MONTH	9.9	7.2	8.4	9.2	6.9	7.9	9.4	7.8	8.6	9.3	7.8	8.5
YEAR	9.9	6.9	8.2									

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 200 ft upstream from bridge on Quaker Bridge Road, 1.9 mi south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1965, 1967, and 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Water Resources Division. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 24...	1250	42	116	7.0	13.0	10.0	--	E1.7	3500	>2400
FEB 06...	1415	89	132	6.2	3.0	11.6	--	3.0	20	540
MAR 27...	1230	62	130	6.4	7.0	11.6	--	E2.1	<20	<2
JUN 06...	1030	163	97	6.5	19.0	8.0	--	E1.6	50	17
JUL 31...	1330	59	105	7.0	23.0	9.8	113	3.3	230	350
AUG 16...	1330	32	114	7.6	29.5	9.2	120	4.0	20	79

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 24...	39	8.8	4.1	5.3	2.9	17	18	12	.10
FEB 06...	33	7.1	3.7	7.0	2.4	11	19	15	<.10
MAR 27...	37	8.1	4.0	5.8	2.1	5.0	23	13	.10
JUN 06...	27	6.0	2.9	3.2	2.4	8.0	13	6.9	.20
JUL 31...	31	7.0	3.4	3.7	2.5	13	14	9.3	.10
AUG 16...	37	7.9	4.1	4.2	2.5	19	16	11	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 24...	4.2	75	.017	1.0	.080	.53	1.6	.070	5.6
FEB 06...	5.2	76	.022	1.7	.190	.98	2.7	.140	4.2
MAR 27...	3.8	76	.009	2.0	.050	.59	2.6	.040	2.5
JUN 06...	4.3	78	.027	.99	.220	.99	2.0	.230	6.4
JUL 31...	5.3	75	.015	.71	<.050	.79	1.5	.120	5.8
AUG 16...	4.8	73	.011	.51	<.050	1.1	1.6	.070	--

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
OCT 24...	1250	480	<.1	6.8	<1	1	6	<10	<1	1500

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 24...	<10	94	<.01	<10	<1	8	<1	<1.0	<.1	<1.0

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 24...	2.4	3.1	1.9	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 24...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, Hydrologic Unit 02040105, on left bank 20 ft upstream from Chambers Street Bridge in Trenton, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--90.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1923 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good except those of no gage-height record, Oct. 1 to 5, which are fair. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi above station (records given herein). In addition there is an average inflow of about 2.0 ft³/s from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months. Flow regulated by several flood-control reservoirs upstream of gage since mid-1970's.

AVERAGE DISCHARGE.--61 years, 130 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s July 21, 1975, gage height, 14.61 ft, from high-water mark in gage house; minimum, 1.0 ft³/s Aug. 21, Oct. 22, 1931, gage height, 0.25 ft; minimum daily, 4.0 ft³/s July 21, Aug. 8, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 16	0045	1010	6.17
Dec. 4	1345	1150	6.57
Dec. 13	2130	1870	8.42
Dec. 22	1530	1430	7.32
Dec. 28	2030	998	6.14
Feb. 15	1145	949	6.00
Mar. 14	0115	1260	6.88
Mar. 29	1115	1660	7.91
Apr. 5	0845	1750	8.14
Apr. 19	1730	907	5.82
May 30	0815	1990	8.74
July 7	1445	*2300	9.50
July 27	1215	1240	6.83

Minimum discharge, 47 ft³/s Sept. 27, gage height, 2.69 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	79	202	229	179	273	360	160	537	108	155	59
2	103	76	180	211	159	232	326	148	411	99	141	55
3	91	74	196	199	182	209	312	175	364	94	128	66
4	75	80	601	188	483	190	324	514	349	87	120	115
5	67	71	467	178	350	252	1300	408	345	109	158	75
6	75	68	364	171	283	354	652	319	319	248	143	65
7	67	68	373	162	244	267	428	289	304	1220	129	64
8	64	68	278	151	207	226	369	388	302	675	121	61
9	60	68	244	142	187	229	346	489	269	371	114	59
10	60	223	220	142	174	176	315	318	261	281	109	59
11	59	269	199	163	178	191	300	276	252	330	104	59
12	110	167	366	140	193	188	278	283	216	320	101	60
13	83	138	1040	131	185	396	174	271	199	231	99	58
14	114	127	979	136	184	938	136	240	146	201	94	62
15	71	239	458	132	634	580	208	212	87	179	90	132
16	63	542	361	124	454	461	510	197	81	167	86	76
17	62	278	344	120	330	360	290	179	88	149	83	65
18	61	208	314	119	279	305	330	165	133	225	77	64
19	90	179	292	119	240	273	541	159	112	163	74	67
20	67	160	267	111	218	244	459	155	124	132	75	64
21	62	418	248	106	199	230	347	162	175	331	72	62
22	59	249	766	100	180	217	300	136	159	238	70	58
23	140	200	552	100	185	198	349	259	142	171	86	55
24	403	211	347	143	417	180	326	217	151	144	74	56
25	178	473	269	223	273	195	267	172	233	124	68	56
26	129	377	249	234	226	185	232	230	127	111	64	56
27	112	260	225	254	201	159	196	269	108	722	64	54
28	101	252	460	252	432	341	182	265	103	500	63	87
29	91	280	516	210	364	1270	183	886	123	270	64	66
30	84	228	330	190	---	809	170	1600	125	205	62	59
31	82	---	262	198	---	462	---	950	---	174	61	---
TOTAL	2968	6130	11969	5078	7820	10590	10510	10491	6345	8379	2949	1994
MEAN	95.7	204	386	164	270	342	350	338	212	270	95.1	66.5
MAX	403	542	1040	254	634	1270	1300	1600	537	1220	158	132
MIN	59	68	180	100	159	159	136	136	81	87	61	54
(†)	12.3	15.2	20.2	15.9	21.2	21.8	23.0	18.5	17.7	16.6	14.1	13.2

CAL YR 1983 TOTAL 72803 MEAN 199 MAX 1570 MIN 43 † 16.2
WTR YR 1984 TOTAL 85223 MEAN 233 MAX 1600 MIN 54 † 17.5

† Inflow from outside the basin, 2.4 mi upstream of station through plant of Ewing-Lawrence Sewerage Authority, in cubic feet per second.

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge in Extonville, 0.5 mi upstream from Pleasant Run, and 0.7 mi downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--81.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

REVISED RECORDS.--WDR NJ-79-2: 1971(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.94 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated occasionally by lakes above station.

AVERAGE DISCHARGE.--43 years (water years 1941-51, 1953-84), 136 ft³/s, 22.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft³/s Sept. 1, 1978, gage height, 14.18 ft; minimum, 13.1 ft³/s Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft³/s Aug. 30 to Sept. 3, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0800	1330	8.81	May 30	2000	*3180	11.97
Dec. 29	2400	816	7.10	July 1	1400	777	6.91
Mar. 31	---	1500	---	July 8	1000	919	7.55
Apr. 6	0600	1600	9.43				

Minimum discharge, 42 ft³/s Sept. 26, 27, gage height, 2.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	73	140	214	162	263	404	137	1410	632	88	47
2	60	73	125	149	138	178	256	129	575	287	82	43
3	57	73	131	135	139	152	203	127	304	159	80	44
4	56	84	276	133	240	137	177	184	220	126	78	103
5	53	91	611	138	197	140	527	206	174	109	91	107
6	69	80	379	139	177	304	1310	152	150	360	183	78
7	199	77	338	136	148	287	602	137	136	479	118	62
8	264	77	247	129	125	194	315	155	126	800	95	57
9	189	75	176	122	117	170	223	373	116	241	83	52
10	122	102	149	121	113	155	186	220	107	143	76	50
11	82	455	135	161	120	147	170	149	100	131	74	51
12	69	434	178	152	134	146	159	138	92	189	86	51
13	141	205	595	153	132	165	150	160	86	132	174	50
14	127	145	1190	127	129	491	147	153	94	112	114	49
15	111	136	678	127	241	568	172	136	101	107	99	74
16	89	434	369	129	550	473	286	121	94	100	85	94
17	80	431	232	138	297	298	425	112	88	97	74	66
18	75	203	176	111	202	216	320	107	102	126	65	57
19	79	150	156	116	170	187	577	109	143	194	61	57
20	86	130	141	120	152	168	540	110	128	119	75	55
21	75	314	128	115	136	157	329	115	102	150	64	50
22	70	402	250	105	127	174	225	117	90	166	58	48
23	73	195	464	100	122	154	208	110	82	126	57	45
24	212	167	293	119	353	135	255	246	78	103	58	46
25	228	383	202	294	369	135	211	153	147	91	55	45
26	147	636	308	502	200	196	177	121	177	80	52	43
27	119	356	272	407	160	173	160	199	101	151	50	43
28	102	210	295	269	216	174	149	183	88	187	48	58
29	89	181	727	180	410	396	146	641	80	119	47	82
30	77	160	553	152	---	1300	143	2170	171	103	48	63
31	73	---	298	178	---	1000	---	2720	---	99	48	---
TOTAL	3336	6532	10212	5171	5776	8833	9152	9890	5462	6018	2466	1770
MEAN	108	218	329	167	199	285	305	319	182	194	79.5	59.0
MAX	264	636	1190	502	550	1300	1310	2720	1410	800	183	107
MIN	53	73	125	100	113	135	143	107	78	80	47	43
CFSM	1.33	2.67	4.04	2.05	2.44	3.50	3.74	3.91	2.23	2.38	.98	.72
IN.	1.52	2.98	4.66	2.36	2.64	4.03	4.18	4.51	2.49	2.75	1.13	.81

CAL YR 1983 TOTAL 65310 MEAN 179 MAX 1190 MIN 39 CFSM 2.20 IN. 29.81
WTR YR 1984 TOTAL 74618 MEAN 204 MAX 2720 MIN 43 CFSM 2.50 IN. 34.06

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 04...	1120	56	140	7.1	17.5	7.6	79	2.4	490	790
FEB 16...	1230	447	110	6.7	9.0	9.2	79	1.9	400	1700
MAR 22...	1415	179	143	7.1	8.0	11.0	93	2.1	49	920
JUN 12...	1230	92	147	7.0	24.0	6.7	78	4.8	490	2400
JUL 23...	1330	124	135	7.1	23.0	6.9	79	4.2	130	790
AUG 20...	1130	81	172	7.1	21.0	6.9	77	6.3	350	1400
SEP 24...	1330	47	185	7.4	18.0	7.4	78	5.1	220	1400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	42	13	2.3	6.4	2.8	21	23	13	.20
FEB 16...	29	8.4	1.9	7.3	2.4	9.0	21	12	.20
MAR 22...	41	12	2.7	6.7	2.2	13	23	12	.10
JUN 12...	47	14	2.9	6.5	2.7	21	22	13	.20
JUL 23...	43	13	2.6	6.0	2.6	20	17	11	.20
AUG 20...	52	16	3.0	9.0	3.0	28	24	16	.30
SEP 24...	58	18	3.1	10	3.3	30	24	17	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	8.4	100	.044	.92	.200	.57	1.5	.260	5.0
FEB 16...	5.2	78	.031	.68	.500	1.0	1.7	.320	6.9
MAR 22...	7.4	92	.021	1.1	.760	.91	2.0	.230	4.4
JUN 12...	9.6	110	.077	1.3	.240	.76	2.0	.280	7.5
JUL 23...	8.6	116	.082	1.0	.250	1.1	2.1	.300	7.0
AUG 20...	10	112	.101	1.3	.290	.93	2.2	.220	7.0
SEP 24...	10	119	.079	1.6	.200	.60	2.2	.170	4.2

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT											
04...	1120	<.5	820	.2	5.8	<10	3	<1	<10	40	1
JUN											
12...	1230	<.5	--	--	--	50	2	--	<10	40	1
SEP											
24...	1330	<.5	--	--	--	<10	1	--	<10	40	1

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
OCT											
04...	<1	10	10	<10	<10	<1	2400	21000	8	20	50
JUN											
12...	--	50	--	--	2	--	3400	--	2	--	80
SEP											
24...	--	<10	--	--	1	--	2300	--	1	--	50

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	70	<.1	.01	1	<10	<1	30	90	<1	<1	<1.0
JUN											
12...	--	.1	--	5	--	<1	20	--	8	--	--
SEP											
24...	--	.1	--	4	--	<1	10	--	2	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	<.1	1.0	3.8	2.0	1.8	<.1	.4	<.1	<.1	<.1	<.1
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	--	--	--	--	--	--	--	--	--	--	--

01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam.

DRAINAGE AREA.--17.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 04...	1430	22	147	7.2	19.0	8.3	89	1.2	1700	130
FEB 16...	1415	70	140	6.8	8.0	10.9	91	1.9	<200	<200
MAR 22...	1300	44	143	7.3	8.0	11.4	97	2.1	460	490
JUN 12...	1030	27	148	7.1	25.0	7.3	87	1.1	500	800
JUL 23...	1130	29	132	7.2	23.0	7.2	83	3.3	500	1200
AUG 20...	1030	--	158	7.1	22.0	6.4	73	3.6	490	790
SEP 24...	1015	11	159	7.4	20.0	7.6	83	4.8	170	230

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 04...	49	12	4.7	4.7	4.2	24	20	14	.30
FEB 16...	37	8.4	4.0	5.5	2.8	10	21	13	.20
MAR 22...	45	10	4.8	5.8	2.4	9.0	26	15	.10
JUN 12...	45	10	4.9	4.8	2.7	19	19	13	.20
JUL 23...	47	11	4.7	4.3	2.9	24	13	13	.30
AUG 20...	51	12	5.1	6.1	3.7	29	18	15	.30
SEP 24...	50	12	4.8	7.1	4.2	24	19	16	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	8.0	100	.022	.52	.330	.81	1.3	.160	4.1
FEB 16...	5.6	82	.031	1.2	.380	.92	2.1	.190	3.8
MAR 22...	4.9	93	.019	1.7	.120	.42	2.2	.120	2.2
JUN 12...	8.7	105	.037	1.2	.330	.58	1.8	.130	3.4
JUL 23...	7.2	107	.026	.67	.230	.76	1.4	.160	3.8
AUG 20...	6.8	87	.041	.48	.760	1.3	1.8	.240	4.2
SEP 24...	5.8	91	.045	.40	.940	1.9	2.3	.380	3.7

01464515 DOCTORS CREEK AT ALLENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT												
04...	1430	<.5	360	.5	6.1	<10	4	<1	<10	40	1	<1
SEP												
24...	1015	<.5	--	<.1	5.5	<10	1	<1	<10	40	1	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
04...	<10	4	<10	<10	0	1700	6400	3	10	60	70
SEP											
24...	10	5	<10	3	0	1400	9700	3	30	110	200

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
04...	<.1	.01	2	<10	<1	<1	20	30	<1	<1	<1.0
SEP											
24...	.3	<.01	3	<10	<1	<1	10	30	7	8	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
04...	<.1	5.0	1.5	1.3	1.4	<.1	<.1	<.1	<.1	<.1	.3
SEP											
24...	.7	12	1.4	3.4	1.1	<.1	1.0	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
04...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP											
24...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at mile 117.54.

DRAINAGE AREA.--7,160 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Oct. 1-3, Oct. 27 - Nov. 2, Nov. 9-12, Nov. 27 - Dec. 1, Dec. 5-7, Dec. 12-14, Dec. 26 - Jan. 4, Feb. 28 - Mar. 2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.74 ft Oct. 25, 1980; minimum, -6.60 ft Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 8.13 ft May 31; minimum recorded, -6.04 ft Dec. 25.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.73	6.61	7.20	5.87	7.26	6.88	7.89	8.13	8.03	7.27	6.60	6.12
high tide	Date	25	15	4	6	17	21	6	31	1	7	26	30
Minimum	Elevation	--	-4.31	-6.04	-4.28	-4.23	-3.85	-2.39	-3.19	-3.02	-3.04	-3.07	-3.84
low tide	Date	--	13	25	21	1	12	22	16	15	25	31	26
Mean high tide		--	--	--	4.57	4.86	5.13	6.15	5.64	5.71	5.67	5.52	5.18
Mean water level		--	--	--	1.05	1.51	1.72	2.73	2.07	1.96	1.88	1.75	1.52
Mean low tide		--	--	--	-2.75	-2.16	-2.00	-0.99	-1.73	-2.11	-2.16	-2.34	-2.45

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch.

DRAINAGE AREA.--64.5 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1959-62, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB										
14...	1115	83	84	6.7	6.0	10.9	88	.8	20	70
MAR										
20...	0830	197	63	4.7	5.0	11.4	89	.2	<20	50
MAY										
16...	0845	65	65	5.9	13.0	7.9	75	1.1	80	330
JUL										
16...	0915	43	66	6.1	25.0	5.5	67	4.3	130	350
AUG										
07...	0800	195	62	5.3	24.0	5.2	62	1.8	1100	1300
SEP										
24...	0900	26	79	6.6	19.5	7.2	78	1.0	20	230

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
14...	22	6.2	1.7	3.9	1.2	3.0	19	8.1	.10
MAR									
20...	14	3.8	1.1	3.0	.90	2.0	13	5.9	<.10
MAY									
16...	17	5.0	1.2	3.7	1.4	3.0	13	7.3	.10
JUL									
16...	18	5.2	1.2	3.8	1.3	4.0	11	7.5	<.10
AUG									
07...	17	4.9	1.2	2.8	1.5	3.0	13	6.6	<.10
SEP									
24...	21	6.2	1.3	4.9	1.9	8.0	16	8.1	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
14...	4.3	64	.011	.50	.060	.55	1.1	.060	6.0
MAR									
20...	2.6	60	.005	.30	<.050	1.1	1.4	.050	8.6
MAY									
16...	4.1	42	.005	.40	.130	.59	.99	.130	13
JUL									
16...	5.7	72	.014	.38	.200	1.1	1.5	.230	18
AUG									
07...	5.6	82	.013	.21	.050	.81	1.0	.160	20
SEP									
24...	4.8	68	.009	.63	.120	.52	1.2	.200	8.4

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
16...	0845	<.5	230	1	<10	50	<1	10	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
16...	1800	3	20	<.1	3	<1	30	<1

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ

LOCATION.--Lat 39°58'04", long 74°34'48", Burlington County, Hydrologic Unit 02040202, at bridge on Lakehurst Road at outflow of Mirror Lake in Browns Mills, 1.5 mi north of Browns Mills Junction, and 2.0 mi northwest of outflow of Country Lake.

DRAINAGE AREA.--27.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 17...	1115	50	56	4.5	3.0	12.6	93	1.5	5	17
MAR 20...	1045	113	48	4.5	6.0	11.8	95	.2	2	<2
MAY 22...	1145	37	46	5.2	16.0	8.7	88	.9	<20	<20
JUL 16...	1100	40	41	5.7	24.0	6.8	81	1.6	23	170
AUG 07...	1130	54	41	5.8	25.0	6.6	80	1.6	5400	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 17...	9	2.0	.87	2.9	.70	4.0	13	4.9	<.10
MAR 20...	7	1.7	.75	2.5	.50	2.0	8.2	4.6	<.10
MAY 22...	8	2.0	.85	2.5	.60	2.0	8.0	5.0	<.10
JUL 16...	10	2.2	.99	2.5	.80	2.0	12	5.0	<.10
AUG 07...	9	2.0	.90	2.5	.80	3.0	6.5	4.7	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 17...	4.1	35	.004	.11	.080	.15	.26	.020	4.3
MAR 20...	2.6	36	.005	.05	<.050	2.3	2.4	.020	6.7
MAY 22...	2.4	26	.008	.07	.090	.43	.50	.040	5.9
JUL 16...	4.5	50	.010	.06	.110	.74	.80	.070	13
AUG 07...	4.5	20	.012	.07	.060	.62	.69	.080	12

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft upstream from Butterworth Road Bridge, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is at site 785 ft downstream.

AVERAGE DISCHARGE.--31 years, 2.32 ft³/s, 13.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 ft³/s Aug. 25, 1958, gage height, 2.33 ft; minimum daily, 0.8 ft³/s July 6, 19, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7.0 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 14	1715	13	1.94	Apr. 18	1615	8.4	1.77
Mar. 29	1900	16	2.02	May 31	0100	*19	2.08
Apr. 5	2000	13	1.92	Aug. 5	1200	7.2	1.76
Apr. 16	1015	8.2	1.76				

Minimum discharge, 1.2 ft³/s many days in October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.2	2.5	2.9	2.5	4.0	5.6	4.4	9.2	4.3	2.0	1.6
2	1.6	1.2	2.4	2.9	2.5	3.3	5.1	4.1	6.6	4.4	2.0	1.6
3	1.5	1.2	2.5	2.9	2.4	3.0	5.0	4.1	5.7	3.5	1.9	1.6
4	1.4	1.4	3.2	3.0	2.9	2.8	4.9	4.6	5.2	3.0	1.9	1.8
5	1.3	1.2	3.6	3.1	2.8	3.0	10	4.5	4.9	2.8	4.8	1.8
6	1.2	1.2	3.9	3.1	2.6	3.7	9.4	4.1	4.7	2.8	4.0	1.7
7	1.2	1.2	3.6	3.0	2.5	3.7	6.6	4.1	4.5	3.1	2.7	1.6
8	1.2	1.2	3.3	2.9	2.3	3.3	5.7	4.4	4.4	3.1	2.4	1.6
9	1.2	1.2	3.0	2.8	2.2	2.8	5.2	5.1	4.2	2.8	2.2	1.6
10	1.2	1.6	2.8	2.9	2.2	2.7	5.1	4.4	4.1	2.5	2.2	1.6
11	1.2	2.2	2.6	3.2	2.3	3.2	4.9	4.2	3.9	2.5	2.1	1.6
12	1.4	2.0	3.0	3.0	2.4	3.1	4.8	4.1	3.8	2.7	2.4	1.6
13	1.4	1.8	4.7	2.9	2.3	3.5	4.7	4.0	3.7	2.5	2.7	1.5
14	1.4	1.8	6.5	2.8	2.4	8.9	4.9	3.9	4.5	2.4	2.3	1.7
15	1.3	1.9	4.9	2.8	4.0	8.0	5.4	3.7	4.0	2.3	2.1	2.3
16	1.2	2.5	3.9	2.7	4.3	6.3	7.4	3.7	3.7	2.2	2.0	2.0
17	1.2	2.3	3.4	2.6	3.7	5.9	7.1	3.6	3.6	2.2	1.9	1.7
18	1.2	2.3	3.2	2.6	3.2	5.3	6.8	3.6	4.0	2.4	1.8	1.6
19	1.2	2.2	3.1	2.6	2.9	4.8	7.6	3.6	4.0	2.5	1.8	1.6
20	1.2	2.2	2.9	2.5	2.8	4.4	6.2	3.6	3.7	2.3	1.9	1.6
21	1.2	2.8	2.8	2.5	2.7	4.3	5.4	3.6	3.4	2.4	1.8	1.5
22	1.2	2.6	3.8	2.5	2.5	4.2	5.0	3.5	3.2	2.9	1.8	1.5
23	1.3	2.6	4.5	2.5	2.6	3.9	5.5	3.6	3.1	2.6	1.8	1.5
24	1.5	2.6	4.2	2.5	3.8	3.7	5.7	4.0	3.0	2.4	1.8	1.5
25	1.4	3.7	3.2	2.7	3.9	4.1	5.3	3.5	3.2	2.2	1.8	1.5
26	1.4	4.9	2.7	2.9	3.3	4.8	4.9	3.4	3.2	2.1	1.7	1.5
27	1.3	3.8	2.5	3.1	2.9	4.5	4.7	3.4	2.9	2.1	1.7	1.5
28	1.2	3.0	3.2	3.0	3.9	5.2	4.5	3.4	2.8	2.2	1.7	1.6
29	1.2	2.8	5.0	2.8	5.0	12	4.5	3.9	2.7	2.1	1.7	1.6
30	1.2	2.6	4.0	2.6	---	11	4.4	13	3.2	2.0	1.7	1.5
31	1.2	---	3.1	2.7	---	6.8	---	16	---	2.0	1.6	---
TOTAL	40.0	65.2	108.0	87.0	85.8	150.2	172.3	143.1	123.1	81.3	66.2	48.9
MEAN	1.29	2.17	3.48	2.81	2.96	4.85	5.74	4.62	4.10	2.62	2.14	1.63
MAX	1.6	4.9	6.5	3.2	5.0	12	10	16	9.2	4.4	4.8	2.3
MIN	1.2	1.2	2.4	2.5	2.2	2.7	4.4	3.4	2.7	2.0	1.6	1.5
CFSM	.55	.92	1.48	1.20	1.26	2.06	2.44	1.97	1.74	1.11	.91	.69
IN.	.63	1.03	1.71	1.38	1.36	2.38	2.73	2.27	1.95	1.29	1.05	.77

CAL YR 1983 TOTAL 924.8 MEAN 2.53 MAX 8.4 MIN 1.2 CFSM 1.08 IN. 14.64
WTR YR 1984 TOTAL 1171.1 MEAN 3.20 MAX 16 MIN 1.2 CFSM 1.36 IN. 18.54

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960, water-quality monitor since October 1968.

REMARKS.--Water-quality samples were collected at the weir. Interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Maximum, 182 micromhos June 16, 1969; minimum, 19 micromhos Aug. 25, 1979.
WATER TEMEPRATURES: Maximum, 22.0°C Aug. 1, 1970; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 97 micromhos Dec. 14, 15; minimum, 27 micromhos on Nov. 9, 10.
WATER TEMPERATURES: Minimum, 0.0°C Mar. 14, 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
DEC 14...	1200	6.8	96	3.8	8.5	6.1	53	.2	<4	K14	6
FEB 14...	1200	2.4	63	4.1	5.0	8.0	62	.4	--	--	3
APR 25...	1250	5.2	66	3.9	8.5	5.1	44	.6	<1	K60	3
MAY 25...	1100	3.6	62	4.1	14.5	7.0	68	--	--	--	3
JUN 27...	1200	2.9	48	4.0	16.5	1.7	17	.3	<2	K62	2
JUL 26...	1000	2.1	39	4.4	17.0	1.9	20	.2	--	--	2
SEP 14...	1300	1.5	31	4.7	14.0	2.9	28	.5	<4	68	2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC 14...	1.2	.78	2.6	<.10	<1.0	15	6.0	<.10	2.5	39
FEB 14...	.64	.46	1.7	.20	<1.0	8.7	3.8	<.10	3.1	30
APR 25...	.66	.29	1.5	.10	<1.0	7.4	3.4	<.10	2.1	27
MAY 25...	.53	.29	1.6	<.10	<1.0	6.4	3.6	<.10	2.4	22
JUN 27...	.36	.30	1.5	<.10	<1.0	12	3.9	<.10	2.8	32
JUL 26...	.26	.21	1.5	.10	<1.0	9.8	4.2	<.10	3.2	33
SEP 14...	.45	.26	1.6	.20	1.0	2.4	3.6	<.10	4.2	26

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
DEC 14...	9	.17	57	<.10	<.010	.20	.020	.020	<.010	11
FEB 14...	6	.04	91	<.10	<.010	.90	.030	.020	<.010	6.9
APR 25...	6	.08	96	<.10	.030	.60	<.010	<.010	<.010	7.5
MAY 25...	14	.14	65	<.10	.040	<.10	<.010	<.010	<.010	7.4
JUN 27...	4	.03	53	<.10	<.010	1.2	<.010	<.010	<.010	--
JUL 26...	14	.08	55	<.10	.050	.50	<.010	<.010	<.010	11
SEP 14...	18	.07	60	<.10	.020	.70	<.010	<.010	.010	3.3

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC										
14...	1200	420	1	34	<.5	<1	<1	<3	1	240
FEB										
14...	1200	--	--	--	--	--	--	--	--	--
APR										
25...	1250	170	1	18	<.5	<1	<1	<3	1	180
MAY										
25...	1100	190	<1	20	<1	<1	<1	<3	<1	200
JUN										
27...	1200	180	<1	16	<1	<1	<1	<3	3	400
JUL										
26...	1000	210	1	12	1	<1	<1	<3	<1	700
SEP										
14...	1300	60	<1	9	<1	<1	<1	<3	<1	200

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC										
14...	5	<4	53	.1	<10	2	<1	<1	14	<6
FEB										
14...	--	--	--	--	--	--	--	--	--	--
APR										
25...	5	<4	15	<.1	<10	1	<1	<1	7	<6
MAY										
25...	2	<4	11	<.1	<10	1	<1	<1	7	<6
JUN										
27...	7	<4	10	.1	<10	<1	<1	<1	5	<6
JUL										
26...	2	<4	6	<.1	<10	<1	<1	<1	4	<6
SEP										
14...	2	<4	6	<.1	<10	<1	<1	<1	5	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
DEC										
14...	50	--	--	--	--	--	--	--	--	--
FEB										
14...	--	1.4	<.4	1.0	1.7	<.4	1.5	<.4	.28	.02
APR										
25...	23	--	--	--	--	--	--	--	--	--
MAY										
25...	22	--	--	--	--	--	--	--	--	--
JUN										
27...	31	--	--	--	--	--	--	--	--	--
JUL										
26...	18	--	--	--	--	--	--	--	--	--
SEP										
14...	15	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	12.5	12.5	10.0	9.5	9.5	8.0	7.5	7.5	2.0	1.5	1.5
2	13.5	13.0	13.0	10.5	9.5	10.0	7.0	7.0	7.0	2.5	2.0	2.0
3	13.5	13.0	13.0	10.5	10.0	10.5	7.0	6.5	7.0	2.5	2.5	2.5
4	13.5	13.0	13.0	10.5	9.5	10.0	7.0	6.5	6.5	2.5	2.5	2.5
5	14.0	13.0	13.5	9.5	9.0	9.5	6.5	6.5	6.5	3.0	2.5	2.5
6	13.5	13.0	13.0	9.5	9.0	9.5	7.0	6.5	6.5	3.0	2.5	3.0
7	13.0	12.5	12.5	10.0	9.0	9.5	7.0	6.0	6.5	3.0	2.5	3.0
8	13.0	12.0	12.5	10.0	9.5	9.5	6.0	5.5	5.5	3.0	2.5	2.5
9	13.0	12.0	12.5	10.0	9.5	10.0	5.5	5.0	5.0	3.0	2.5	2.5
10	12.5	12.0	12.5	10.5	10.0	10.0	5.5	5.0	5.5	3.5	2.5	3.0
11	12.5	12.0	12.5	11.0	10.5	11.0	6.0	5.5	5.5	2.5	2.0	2.5
12	13.0	12.5	13.0	10.5	9.5	10.0	7.0	6.0	6.5	2.0	2.0	2.0
13	13.5	13.0	13.5	9.5	9.0	9.5	9.0	7.0	8.0	2.5	2.0	2.5
14	13.5	13.0	13.5	9.5	9.0	9.0	9.0	8.5	8.5	3.0	2.5	2.5
15	13.0	12.0	12.5	9.5	9.5	9.5	9.0	8.5	9.0	2.5	2.5	2.5
16	12.5	11.5	12.0	10.0	9.5	10.0	8.5	7.5	8.0	2.5	2.0	2.5
17	12.0	11.5	12.0	9.5	9.0	9.5	7.5	6.5	7.0	3.0	2.5	2.5
18	12.0	11.5	12.0	9.0	8.5	8.5	6.0	5.5	5.5	3.0	2.5	2.5
19	12.0	11.5	12.0	9.0	8.5	8.5	5.0	4.5	5.0	3.0	2.5	3.0
20	12.0	11.5	11.5	9.5	8.5	9.0	4.5	3.5	4.0	2.5	2.5	2.5
21	11.5	11.0	11.0	10.0	9.5	9.5	3.5	3.0	3.5	2.5	2.0	2.5
22	11.0	10.5	11.0	9.5	9.0	9.5	4.0	3.0	3.5	2.5	1.5	2.0
23	11.5	10.5	11.0	9.0	9.0	9.0	3.0	2.0	2.5	3.0	2.0	2.5
24	12.0	11.5	11.5	10.0	9.0	9.5	2.0	1.0	1.5	3.5	3.0	3.5
25	11.5	11.5	11.5	10.0	8.5	9.5	1.0	1.0	1.0	3.0	2.5	3.0
26	11.5	11.0	11.5	8.0	7.5	7.5	1.5	1.0	1.5	2.5	2.5	2.5
27	11.0	10.5	10.5	7.5	7.0	7.5	2.5	1.5	2.0	2.5	2.0	2.5
28	11.0	10.0	10.5	8.0	7.5	7.5	2.5	1.0	2.0	2.0	2.0	2.0
29	11.0	10.5	11.0	8.5	8.0	8.5	1.0	1.0	1.0	2.5	2.0	2.5
30	10.5	10.0	10.0	8.5	8.0	8.0	1.0	1.0	1.0	3.0	2.5	2.5
31	10.0	9.5	10.0	---	---	---	1.5	1.0	1.0	3.0	2.5	3.0
MONTH	14.0	9.5	12.0	11.0	7.0	9.5	9.0	1.0	5.0	3.5	1.5	2.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.5	2.5	2.0	2.5	5.0	4.0	4.5	12.5	12.0	12.0
2	2.5	2.0	2.5	2.5	2.0	2.0	5.5	4.0	5.0	12.0	11.0	11.5
3	3.5	2.5	3.0	2.5	2.0	2.5	7.0	5.5	6.0	11.5	11.0	11.0
4	3.0	2.5	3.0	2.5	2.0	2.5	7.5	6.5	7.0	13.0	11.5	12.5
5	2.5	2.5	2.5	2.5	2.5	2.5	9.5	7.5	9.0	13.0	12.0	12.5
6	3.0	2.5	2.5	2.5	2.5	2.5	9.0	8.5	9.0	12.5	12.0	12.5
7	2.5	2.5	2.5	3.0	2.5	2.5	8.5	7.5	8.0	12.0	11.5	11.5
8	2.5	2.5	2.5	2.5	2.0	2.5	8.0	7.0	7.5	13.0	11.5	12.0
9	3.0	2.5	3.0	2.0	.5	2.0	7.5	6.5	7.0	12.5	12.0	12.5
10	3.5	3.0	3.5	2.5	2.0	2.0	7.0	6.0	6.5	12.0	11.0	11.5
11	4.0	3.5	4.0	2.0	2.0	2.0	7.5	6.5	7.0	12.5	11.5	12.0
12	4.0	4.0	4.0	2.0	1.5	2.0	8.0	6.5	7.5	13.0	12.5	13.0
13	4.0	4.0	4.0	2.5	1.0	2.0	8.5	7.5	8.0	13.5	12.5	13.0
14	5.0	4.5	5.0	1.0	.0	.5	8.5	8.0	8.5	13.0	12.5	13.0
15	5.0	3.0	4.0	.5	.0	.5	8.0	8.0	8.0	12.0	11.5	11.5
16	3.0	2.5	3.0	1.0	.5	1.0	9.0	8.0	8.5	11.0	10.5	11.0
17	3.0	2.5	3.0	1.5	1.0	1.5	10.0	8.5	9.5	10.5	10.0	10.5
18	3.5	3.0	3.5	2.0	1.5	2.0	10.0	9.0	9.5	10.5	9.5	10.0
19	4.0	3.5	4.0	3.0	2.0	2.5	9.5	9.0	9.0	11.0	10.0	10.5
20	4.5	4.0	4.5	4.0	3.0	3.5	10.0	9.0	9.5	12.5	11.0	12.0
21	4.5	4.5	4.5	5.0	4.0	4.5	10.0	9.0	9.5	13.5	12.5	13.0
22	4.5	4.0	4.5	5.5	5.0	5.0	9.0	8.0	8.5	14.5	13.0	14.0
23	5.0	4.5	4.5	5.5	5.0	5.5	8.0	7.5	8.0	15.5	14.5	15.0
24	5.5	4.5	5.0	5.0	4.5	5.0	8.5	8.0	8.5	15.5	15.0	15.0
25	5.5	5.0	5.5	5.5	5.0	5.0	8.5	8.5	8.5	15.0	14.5	14.5
26	5.0	4.5	5.0	5.5	5.0	5.0	10.0	8.5	9.5	16.0	15.0	15.5
27	4.5	4.0	4.0	5.0	4.5	5.0	10.5	9.5	10.0	16.0	15.5	16.0
28	4.5	4.0	4.5	5.0	4.5	5.0	10.5	9.5	10.0	15.5	15.0	15.5
29	4.5	3.0	3.5	4.5	3.5	4.0	11.5	10.0	11.0	16.0	15.5	15.5
30	---	---	---	4.0	3.5	4.0	12.0	11.0	11.5	16.5	15.0	16.0
31	---	---	---	5.0	4.0	4.5	---	---	---	15.0	13.5	14.0
MONTH	5.5	2.0	3.5	5.5	.0	3.0	12.0	4.0	8.5	16.5	9.5	13.0

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	12.5	13.0	19.0	18.0	18.5	---	---	---	14.5	14.0	14.5
2	13.5	13.0	13.5	19.0	18.5	19.0	---	---	---	14.5	13.5	14.0
3	13.5	13.0	13.0	19.5	18.5	19.0	---	---	---	14.5	14.0	14.0
4	14.5	13.0	13.5	19.0	18.5	19.0	---	---	---	14.5	14.5	14.5
5	15.0	14.0	14.5	19.5	18.5	19.0	---	---	---	14.5	14.0	14.0
6	16.0	15.0	15.5	19.5	19.0	19.0	---	---	---	14.0	13.0	13.5
7	17.0	16.0	16.5	19.0	19.0	19.0	---	---	---	13.5	12.5	13.0
8	17.5	16.5	17.0	---	---	---	---	---	---	13.0	12.0	12.5
9	18.5	17.5	18.0	---	---	---	---	---	---	13.0	12.0	12.5
10	19.0	18.0	18.5	---	---	---	---	---	---	13.5	12.5	13.0
11	19.5	18.5	19.0	---	---	---	---	---	---	13.5	13.0	13.0
12	19.0	18.5	19.0	---	---	---	---	---	---	13.5	13.0	13.5
13	19.0	18.5	19.0	---	---	---	---	---	---	13.5	13.0	13.5
14	19.5	19.0	19.0	---	---	---	---	---	---	14.5	13.5	14.0
15	19.5	17.5	18.5	---	---	---	---	---	---	15.0	14.5	14.5
16	17.5	16.5	17.0	---	---	---	---	---	---	14.5	13.0	14.0
17	16.5	16.5	16.5	---	---	---	17.0	16.5	16.5	13.0	12.5	13.0
18	16.5	16.0	16.5	---	---	---	16.5	15.5	16.0	12.5	12.0	12.5
19	17.5	16.5	17.0	---	---	---	15.5	15.5	15.5	12.5	11.5	12.0
20	17.5	17.0	17.0	---	---	---	16.0	15.0	15.5	13.0	12.0	12.5
21	17.0	16.5	17.0	---	---	---	15.5	14.5	15.0	13.0	12.0	12.5
22	16.5	16.0	16.0	---	---	---	15.0	14.5	14.5	13.0	12.0	12.5
23	16.5	16.0	16.0	---	---	---	15.0	14.5	15.0	13.0	12.5	12.5
24	16.5	16.5	16.5	---	---	---	15.0	14.5	15.0	13.5	12.5	13.0
25	17.0	16.5	17.0	---	---	---	15.0	14.5	14.5	13.5	13.0	13.0
26	17.0	16.5	17.0	---	---	---	14.5	14.0	14.5	13.5	12.5	13.0
27	16.5	16.0	16.5	---	---	---	14.5	14.0	14.0	12.5	12.0	12.5
28	17.0	16.5	17.0	---	---	---	14.5	14.0	14.5	12.0	12.0	12.0
29	17.0	17.0	17.0	---	---	---	15.0	14.5	14.5	12.5	12.0	12.0
30	18.0	17.0	17.5	---	---	---	15.0	14.5	14.5	12.5	12.0	12.0
31	---	---	---	---	---	---	15.5	14.5	15.0	---	---	---
MONTH	19.5	12.5	16.5	19.5	18.0	19.0	17.0	14.0	15.0	15.0	11.5	13.0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	36	34	35	30	29	30	76	73	75	76	74	75
2	39	36	38	30	29	29	74	70	72	75	73	74
3	39	37	38	30	29	29	71	70	71	75	73	74
4	37	35	36	32	28	31	84	70	76	74	72	74
5	35	33	34	31	29	30	88	82	84	73	72	72
6	34	32	33	30	29	29	88	86	87	73	71	71
7	33	31	32	29	28	29	86	83	85	71	70	71
8	32	31	32	29	28	28	84	82	83	70	68	69
9	32	30	31	28	27	27	81	77	79	70	68	69
10	31	30	31	53	27	33	77	74	75	70	67	68
11	31	30	31	57	53	55	74	71	72	72	70	71
12	40	30	35	57	52	55	82	70	76	71	70	71
13	40	36	38	52	46	49	96	82	90	70	69	70
14	36	34	35	46	43	44	97	95	96	69	68	69
15	35	33	34	52	40	43	97	90	93	69	67	68
16	34	32	33	62	54	59	90	86	88	68	66	67
17	33	32	32	63	59	61	86	82	84	67	65	66
18	33	31	32	63	60	62	82	79	80	66	64	65
19	32	31	31	62	60	61	81	76	78	65	64	65
20	32	31	31	59	56	57	78	75	76	66	64	65
21	32	30	31	72	56	67	75	73	74	65	64	65
22	31	30	31	72	68	70	81	73	77	65	63	64
23	34	30	31	74	72	73	85	80	82	63	61	62
24	39	33	37	74	70	72	84	81	82	69	61	63
25	37	35	36	88	74	81	81	76	79	74	69	72
26	35	34	34	96	86	93	77	72	74	75	73	74
27	34	33	34	95	90	93	72	69	71	76	74	75
28	34	32	33	90	85	87	81	69	72	75	73	74
29	33	32	32	85	81	83	84	81	82	74	71	72
30	31	30	30	81	77	79	84	81	82	73	70	71
31	31	29	30	---	---	---	81	76	78	72	70	71
MONTH	40	29	33	96	27	55	97	69	80	76	61	70

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	71	69	70	87	82	84	73	71	72	67	65	66
2	70	67	68	82	79	81	72	70	71	68	65	66
3	69	66	67	78	76	77	71	70	71	67	66	67
4	73	69	72	76	74	75	72	70	71	71	65	68
5	73	70	71	76	73	74	77	72	75	76	58	65
6	72	69	70	78	75	77	78	75	77	65	58	62
7	70	68	69	78	77	78	75	72	73	64	60	62
8	68	66	67	77	74	76	71	69	70	71	61	65
9	67	65	66	75	68	71	70	68	69	71	62	65
10	66	64	65	72	68	69	69	68	68	67	63	65
11	66	64	65	74	71	73	69	68	68	68	66	67
12	67	65	66	75	73	74	69	68	68	67	66	66
13	66	65	65	75	72	73	69	68	68	66	65	66
14	65	64	65	79	73	77	69	68	69	65	64	64
15	91	69	84	78	74	76	71	69	70	65	64	64
16	88	84	86	74	71	73	73	71	72	64	63	64
17	85	80	82	71	69	70	74	71	73	64	63	64
18	80	78	79	70	69	70	73	71	72	64	63	63
19	78	76	77	70	69	69	72	70	71	64	63	63
20	75	73	74	70	69	70	70	68	69	64	63	63
21	74	73	73	71	69	70	69	67	68	64	62	63
22	73	71	72	71	69	70	68	66	67	62	61	62
23	76	70	72	70	68	70	67	65	66	64	60	62
24	82	77	80	70	68	69	67	66	67	65	63	64
25	84	82	83	73	68	70	67	66	67	64	61	62
26	83	79	81	74	72	73	66	65	65	62	60	61
27	80	77	78	73	71	72	68	65	66	60	59	60
28	84	76	80	76	71	73	67	65	66	59	58	59
29	88	84	87	82	77	81	67	65	66	61	57	58
30	---	---	---	81	75	78	67	66	66	63	61	62
31	---	---	---	76	73	74	---	---	---	61	58	59
MONTH	91	64	74	87	68	74	78	65	69	76	57	63

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	60	57	59	53	49	51	---	---	---	32	31	32
2	60	58	59	53	50	51	---	---	---	32	31	32
3	59	58	59	51	48	49	---	---	---	33	31	31
4	59	58	59	48	46	47	---	---	---	34	31	33
5	59	58	59	47	45	46	---	---	---	35	34	35
6	59	58	59	46	44	45	---	---	---	35	33	34
7	59	58	59	47	44	45	---	---	---	34	32	33
8	58	57	58	47	45	46	---	---	---	33	32	33
9	58	57	58	45	44	45	---	---	---	33	31	32
10	58	56	57	---	---	---	---	---	---	31	30	30
11	57	55	56	---	---	---	---	---	---	31	30	30
12	56	54	55	---	---	---	---	---	---	30	29	30
13	54	53	53	---	---	---	---	---	---	30	29	30
14	57	53	56	---	---	---	---	---	---	39	29	31
15	56	53	54	---	---	---	---	---	---	45	38	42
16	53	52	52	---	---	---	---	---	---	44	38	41
17	52	51	52	---	---	---	39	38	39	38	35	36
18	53	51	52	---	---	---	39	37	38	34	32	33
19	53	52	52	---	---	---	38	37	37	33	31	32
20	52	51	52	---	---	---	39	37	38	32	30	31
21	50	49	49	---	---	---	39	37	38	31	30	30
22	49	48	49	---	---	---	36	35	36	30	29	30
23	49	47	48	---	---	---	36	35	36	30	29	29
24	48	47	48	---	---	---	37	36	36	30	28	29
25	49	47	48	---	---	---	36	35	36	28	27	28
26	49	48	48	---	---	---	35	34	35	28	27	28
27	48	47	47	---	---	---	35	34	34	28	27	28
28	47	46	47	---	---	---	34	33	34	30	27	28
29	47	46	46	---	---	---	34	33	34	30	28	29
30	51	45	48	---	---	---	34	33	33	29	28	29
31	---	---	---	---	---	---	33	32	33	---	---	---
MONTH	60	45	53	53	44	47	39	32	36	45	27	32
YEAR	97	27	59									

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street at Pemberton, 12 mi upstream from confluence with South Branch Rancocas Creek.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933. WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft National Geodetic Vertical Datum of 1929. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft downstream at datum 6.54 ft lower.

REMARKS.--Water-discharge records good. Flow regulated occasionally by operation of gate in dam and by ponds above station.

AVERAGE DISCHARGE.--63 years, 256 ft³/s, 19.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,730 ft³/s Aug. 31, 1939, gage height, 10.77 ft, from high-water mark, site and datum then in use; minimum daily, 9.0 ft³/s Sept. 29, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 15	0400	656	2.51	Apr. 6	1915	839	2.77
Mar. 15	2115	734	2.62	Apr. 19	2000	607	2.44
Mar. 30	2015	964	2.95	June 1	0645	*1340	3.43

Minimum discharge, 64 ft³/s Oct. 9, 10, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	79	254	279	236	415	719	264	1310	219	108	83
2	140	80	205	251	225	389	568	276	1070	320	104	80
3	149	80	209	236	214	355	436	264	763	243	99	83
4	134	108	329	224	227	323	392	291	573	196	98	123
5	112	109	468	218	230	311	585	262	412	191	184	131
6	97	103	454	218	234	347	793	276	352	197	281	124
7	86	99	417	213	223	323	788	279	318	236	315	111
8	73	98	355	207	204	309	660	300	287	287	258	100
9	67	102	337	202	189	317	546	300	247	193	212	93
10	64	156	296	200	178	316	452	281	207	177	173	92
11	64	339	267	240	175	300	386	282	183	162	148	110
12	85	342	287	208	175	262	296	268	163	168	139	86
13	115	260	426	215	174	277	306	249	155	156	155	83
14	115	223	607	209	187	550	338	234	177	143	260	86
15	101	252	632	201	329	689	346	221	227	129	275	88
16	91	339	521	191	395	711	378	213	165	117	219	91
17	85	326	392	184	405	660	493	205	165	110	176	88
18	82	326	334	186	364	558	516	199	202	138	148	82
19	86	271	299	194	329	481	585	188	206	216	128	80
20	85	224	267	155	300	431	601	185	179	158	119	79
21	80	283	233	160	267	398	555	182	206	144	114	75
22	74	318	291	145	251	374	490	171	134	165	109	72
23	81	309	338	159	265	341	455	170	122	165	101	70
24	133	269	336	161	328	274	434	184	117	150	99	70
25	145	419	264	227	332	282	385	195	139	139	97	70
26	141	502	199	270	332	340	379	193	141	131	94	70
27	131	492	218	293	309	382	377	213	148	138	98	69
28	111	413	248	277	364	452	356	236	136	143	97	77
29	92	338	385	249	404	670	331	368	125	135	94	86
30	82	306	386	238	---	904	299	698	145	128	94	83
31	77	---	321	246	---	882	---	1090	---	118	87	---
TOTAL	3076	7565	10575	6656	7845	13623	14245	8737	8774	5312	4683	2635
MEAN	99.2	252	341	215	271	439	475	282	292	171	151	87.8
MAX	149	502	632	293	405	904	793	1090	1310	320	315	131
MIN	64	79	199	145	174	262	296	170	117	110	87	69
CFSM	.84	2.14	2.89	1.82	2.30	3.72	4.03	2.39	2.47	1.45	1.28	.74
IN.	.97	2.38	3.33	2.10	2.47	4.29	4.49	2.75	2.77	1.67	1.48	.83

CAL YR 1983 TOTAL 77403 MEAN 212 MAX 761 MIN 52 CFSM 1.80 IN. 24.40
WTR YR 1984 TOTAL 93726 MEAN 256 MAX 1310 MIN 64 CFSM 2.17 IN. 29.55

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 17...	0945	185	60	4.4	1.5	13.5	95	1.2	11	50
MAR 20...	0945	433	53	4.3	5.0	11.4	89	.4	2	9
MAY 16...	1020	213	47	4.6	14.0	8.6	84	1.1	<20	110
AUG 07...	1000	327	44	4.5	23.0	5.9	69	1.7	330	3500
29...	1100	94	39	4.9	20.0	7.2	79	.9	23	540
SEP 24...	1000	70	40	5.2	17.0	8.3	85	1.0	<20	2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 17...	9	2.0	.87	3.2	.60	<1.0	13	7.0	<.10
MAR 20...	6	1.5	.58	2.4	.50	<1.0	8.5	4.8	<.10
MAY 16...	7	1.7	.78	2.7	.60	<1.0	9.5	5.4	<.10
AUG 07...	5	1.3	.53	2.5	.60	<1.0	6.7	5.1	<.10
29...	6	1.4	.67	2.7	.70	1.0	5.1	3.8	<.10
SEP 24...	8	1.7	.81	2.9	.70	2.0	6.9	5.2	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 17...	4.5	42	.004	.13	.120	.21	.34	.030	5.5
MAR 20...	2.4	36	.005	<.05	<.050	.33	--	.030	8.0
MAY 16...	2.7	42	.003	.09	.090	.66	.75	.050	9.5
AUG 07...	4.5	34	.013	.07	<.050	.75	.82	.080	16
29...	4.9	38	.007	.10	<.050	.61	.71	.050	12
SEP 24...	4.8	38	.004	.17	.130	.21	.38	.030	6.0

DELAWARE RIVER BASIN

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
16...	1020	<.5	180	<1	<10	30	<1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
16...	1600	1	10	<.1	2	<1	30	1

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi upstream from Tacony-Palmyra Bridge, 3.5 mi downstream from Rancocas Creek, and at mile 107.55.

DRAINAGE AREA.--7,850 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Some periods of low tide are affected by sluggish or plugged intake and the record is estimated with negligible loss in accuracy. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Dec. 26 - Jan. 4, Jan. 21-25, Feb. 1-2, July 15-16, Sept. 17-19.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.23 ft Oct. 25, 1980; minimum, -8.6 ft Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.48 ft Apr. 6; minimum recorded, -4.17 ft Dec. 25.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.13	6.68	7.02	6.30	6.74	6.30	7.48	7.37	7.35	6.37	5.97	5.56
high tide	Date	25	15	22	17	17	29	6	31	1	7	26	30
Minimum	Elevation	-3.67	-3.61	-4.17	--	-3.58	-3.72	-2.43	-3.05	-2.75	-2.83	-2.83	-3.62
low tide	Date	29	13	25	--	26	12	22	16	15	25	31	26
Mean high tide		4.71	4.61	--	--	4.44	4.45	5.59	5.04	5.13	5.00	4.89	4.60
Mean water level		1.63	1.47	--	--	1.38	1.37	2.40	1.79	1.76	1.65	1.58	1.41
Mean low tide		-1.80	-1.93	--	--	-1.95	-2.00	-1.04	-1.71	-1.94	-2.07	-2.14	-2.29

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft downstream from outlet of Strawbridge Lake, 0.6 mi northwest of Moorestown Mall, 0.8 mi southeast of Lenola, and 1.8 mi southwest of Moorestown.

DRAINAGE AREA.--12.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN										
25...	0945	14	745	6.5	1.0	12.0	85	4.2	700	4600
MAR										
19...	0745	4.4	260	6.5	5.0	11.2	88	3.3	130	80
MAY										
15...	0830	1.8	258	6.6	15.0	6.5	--	3.9	50	70
JUL										
18...	0800	1.2	259	7.1	25.0	7.0	86	2.4	170	230
AUG										
20...	0800	1.4	235	6.8	21.5	6.4	73	6.9	130	1100
SEP										
27...	0845	--	300	7.2	17.5	7.0	72	6.3	490	230

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
25...	83	23	6.2	150	4.1	14	52	240	.20
MAR									
19...	72	20	5.4	16	3.5	4.0	63	20	.10
MAY									
15...	73	20	5.5	12	4.5	5.0	58	23	.20
JUL									
18...	77	21	5.9	12	5.5	15	56	24	.30
AUG									
20...	69	19	5.2	11	5.6	14	55	20	.30
SEP									
27...	84	23	6.4	17	6.3	16	62	26	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
25...	8.0	532	.036	1.1	.650	1.1	2.1	.130	3.6
MAR									
19...	10	161	.012	1.0	.490	1.2	2.3	.170	4.0
MAY									
15...	11	177	.037	.68	1.41	2.4	3.1	.320	8.2
JUL									
18...	11	191	.044	.49	.360	1.9	2.4	.240	5.2
AUG									
20...	11	148	.051	.72	.830	1.8	2.5	.160	5.4
SEP									
27...	9.3	171	.077	.44	1.40	2.4	2.8	.330	4.4

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
SEP											
27...	0845	<.5	1.8	7.1	10	3	<1	<10	70	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP											
27...	20	6	<10	3	<1	6100	6000	8	260	200	67

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	<.1	<.01	13	<10	<1	<1	40	40	<1	53	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	<.1	42	26	12	11	<.1	1.8	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi south of Maple Shade and 3.8 mi upstream from confluence with the North Branch Pennsauken Creek.

DRAINAGE AREA.--8.98 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.12 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Oct. 14 to 23 and May 23 to June 27, which are poor. Diurnal fluctuations from unknown source.

AVERAGE DISCHARGE.--16 years, (water years 1968-76, 1978-84) 18.7 ft³/s, 28.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft³/s Aug. 28, 1978, gage height, 10.19 ft; maximum gage height, 11.34 ft Aug. 28, 1971; minimum discharge, 2.6 ft³/s Oct. 6, 9, 10, 11, 1970, gage height, 1.71 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 15	2245	341	6.62	May 8	2215	354	6.73
Mar. 14	0100	386	7.01	May 30	---	423	7.32
Mar. 29	0930	319	6.42	Aug. 5	0830	318	6.41
Apr. 5	0915	366	6.84	Aug. 12	1630	*557	8.33

Minimum discharge, 3.3 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.4	12	10	14	16	19	13	23	16	7.5	8.3
2	6.8	5.5	11	10	11	13	17	12	17	12	9.0	8.1
3	5.6	5.7	22	10	14	12	15	13	15	9.9	7.8	24
4	5.2	20	120	11	37	11	28	22	14	8.8	8.6	52
5	4.8	6.2	37	12	18	38	239	16	18	18	98	15
6	5.4	5.8	35	11	14	51	52	11	15	116	17	13
7	4.7	5.8	27	11	12	20	26	11	13	72	11	12
8	4.5	5.5	15	9.7	10	15	19	74	12	20	10	11
9	4.7	5.3	13	9.4	10	17	16	96	12	12	8.0	9.4
10	4.8	47	13	12	9.8	17	15	19	11	10	7.8	10
11	5.0	49	13	19	13	20	14	14	11	12	7.6	12
12	31	12	60	11	12	19	14	13	12	14	180	9.6
13	8.8	7.7	113	9.4	12	106	14	12	11	9.1	61	6.2
14	7.5	7.1	68	12	16	218	14	14	103	8.8	13	6.8
15	4.7	70	27	10	130	54	34	11	170	8.7	9.2	11
16	5.2	135	19	9.1	39	32	100	11	10	8.6	8.0	7.1
17	4.7	18	16	9.0	19	22	32	11	11	8.7	7.2	6.4
18	4.9	12	15	9.0	19	18	23	11	24	46	6.7	6.5
19	5.6	10	14	9.4	15	16	21	12	43	12	6.6	6.5
20	5.4	9.4	13	9.0	13	15	16	12	59	8.8	6.7	6.7
21	5.4	96	12	9.3	12	18	15	12	11	17	6.2	6.2
22	4.9	19	125	8.8	11	15	13	12	9.6	18	5.7	6.0
23	5.2	13	39	8.5	24	13	40	27	9.2	9.2	5.7	6.2
24	45	30	19	26	93	12	25	68	11	8.6	5.7	6.9
25	13	105	13	55	22	32	17	12	120	8.1	7.6	6.9
26	7.3	33	11	40	15	32	15	12	37	7.8	8.9	7.7
27	5.9	17	11	28	13	16	13	13	12	21	9.2	8.7
28	5.5	16	78	18	99	107	13	51	9.8	8.4	10	22
29	5.4	17	57	14	34	224	29	92	9.2	7.7	10	11
30	5.4	12	17	13	---	47	15	255	37	8.0	11	6.8
31	5.7	---	11	21	---	25	---	74	---	7.8	9.0	---
TOTAL	243.9	800.4	1056	454.6	760.8	1271	923	1036	869.8	553.0	579.7	330.0
MEAN	7.87	26.7	34.1	14.7	26.2	41.0	30.8	33.4	29.0	17.8	18.7	11.0
MAX	45	135	125	55	130	224	239	255	170	116	180	52
MIN	4.5	5.3	11	8.5	9.8	11	13	11	9.2	7.7	5.7	6.0
CFSM	.88	2.97	3.80	1.64	2.92	4.57	3.43	3.72	3.23	1.98	2.08	1.22
IN.	1.01	3.32	4.37	1.88	3.15	5.27	3.82	4.29	3.60	2.29	2.40	1.37

CAL YR 1983 TOTAL 7881.1 MEAN 21.6 MAX 370 MIN 4.4 CFSM 2.41 IN. 32.65
WTR YR 1984 TOTAL 8878.2 MEAN 24.3 MAX 255 MIN 4.5 CFSM 2.71 IN. 36.78

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN										
25...	1145	38	505	6.9	3.0	11.9	89	5.1	200	<200
MAR										
19...	0945	16	328	7.0	5.0	11.0	86	5.1	2300	<200
MAY										
15...	1000	11	341	7.2	12.5	8.0	75	6.6	2300	800
JUL										
18...	0930	13	310	7.2	23.0	5.3	62	5.2	>240000	>240000
AUG										
20...	0915	5.6	343	7.2	18.5	6.0	64	6.6	11000	2200
SEP										
27...	1045	8.8	395	7.4	15.0	6.3	61	6.6	>240000	22000

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
25...	71	20	5.1	59	4.3	17	39	110	.20
MAR									
19...	86	23	7.0	22	5.5	17	62	33	.20
MAY									
15...	86	23	7.0	20	6.7	25	56	28	.20
JUL									
18...	75	20	6.0	20	7.4	35	44	25	.20
AUG									
20...	86	23	7.0	25	8.4	45	55	31	.30
SEP									
27...	90	24	7.3	31	10	48	56	29	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
25...	7.0	288	.059	1.4	.950	1.8	3.2	.440	6.1
MAR									
19...	12	194	.077	2.0	2.14	3.2	5.2	.680	--
MAY									
15...	12	229	.226	1.8	2.80	3.8	5.6	.850	4.6
JUL									
18...	11	212	.215	1.1	2.96	3.6	4.6	.690	6.0
AUG									
20...	13	217	.390	1.7	2.28	2.6	4.3	.580	4.1
SEP									
27...	13	235	.450	2.4	3.00	3.5	5.8	1.65	3.8

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
SEP 27...	1045	.1	2.2	10	2	<1	<10	180	2	<1	20

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
SEP 27...	7	<10	6	<1	1200	3700	<1	20	70	17	.3

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 27...	<.01	6	<10	<1	<1	50	30	7	12	<1.0	<.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
SEP 27...	16	3.7	2.2	.5	<.1	1.4	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ

LOCATION.--Lat 39°49'43", long 74°58'55", Camden County, Hydrologic Unit 02040202, at bridge on Norcross Road in Lindenwold, 50 ft downstream from outflow of Linden Lake, 1.1 mi southwest of Gibbstown, and 1.7 mi south of Glendale.

DRAINAGE AREA.--1.13 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 23...	1100	E1.0	100	6.3	1.0	9.2	63	1.2	4	8
MAR 21...	0915	E2.2	91	7.0	9.0	11.1	98	1.1	<20	<20
MAY 17...	1000	E1.2	80	7.3	13.0	8.0	76	4.8	<2	17
JUL 17...	1030	E1.1	72	6.7	24.0	6.0	72	2.1	40	130
AUG 09...	0900	E.92	64	6.8	25.0	5.9	72	3.3	49	920
SEP 26...	1115	E.84	67	6.7	20.0	6.7	74	1.5	2	13

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 23...	22	6.7	1.2	6.9	1.4	14	14	11	<.10
MAR 21...	21	6.6	1.2	7.1	1.6	10	13	10	<.10
MAY 17...	20	6.3	1.1	5.5	1.2	10	10	9.0	<.10
JUL 17...	20	6.3	1.0	4.2	.90	12	9.7	8.1	<.10
AUG 09...	19	6.0	.93	3.9	.70	13	9.7	7.8	<.10
SEP 26...	20	6.4	.94	3.8	1.1	14	7.5	7.4	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	6.8	60	.012	.16	.320	E.42	--	.040	3.2
MAR 21...	1.6	54	.006	.12	.150	.56	.68	.040	5.7
MAY 17...	1.5	60	<.003	<.05	.100	.59	--	.040	6.0
JUL 17...	.9	64	.004	.05	.130	.48	.53	.050	9.4
AUG 09...	2.5	54	.003	<.05	.070	.69	--	.060	7.5
SEP 26...	1.9	44	.005	<.05	.090	.57	--	.030	4.0

DELAWARE RIVER BASIN

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 17...	1000	<.5	--	--	30	<1	--	<10	30	<1	--
SEP 26...	1115	--	1.1	6.2	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY 17...	10	--	--	4	--	2100	--	4	--	30	--
SEP 26...	--	3	<10	--	<1	--	1400	--	90	--	20

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 17...	<.1	--	3	--	<1	--	20	--	<1	--	--
SEP 26...	--	<.01	--	<10	--	<1	--	30	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 17...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	<.1	8.0	16	<.1	16	<.1	.7	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 17...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467140 COOPER RIVER AT LAWNSIDE, NJ

LOCATION.--Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, at bridge on Woodcrest Road in Lawnside, 0.2 mi upstream from the New Jersey Turnpike, and 1.7 mi upstream from Tindale Run.

DRAINAGE AREA.--12.7 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 05...	1330	E14	362	7.3	22.0	3.9	45	8.7	35000	7900
FEB 16...	0945	E52	245	7.0	10.5	8.7	77	7.1	<200	<200
MAR 22...	1030	E28	275	7.1	10.0	9.4	84	10	200	200
MAY 17...	1045	E21	280	7.2	14.0	7.2	70	13	<200	500
AUG 09...	1030	E16	345	7.1	24.0	3.8	45	10	<200	17000
30...	0800	E16	370	7.2	20.5	4.0	45	8.7	2700	35000

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	62	18	4.2	31	9.3	20	28	36	.30
FEB 16...	45	13	3.0	18	4.4	8.0	28	30	.20
MAR 22...	55	16	3.7	22	6.1	10	32	31	.20
MAY 17...	55	16	3.7	22	7.4	14	28	32	.20
AUG 09...	58	17	3.7	25	8.7	94	27	34	.30
30...	56	16	3.8	28	8.7	32	29	39	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	14	174	.208	1.2	9.30	10	11	1.87	12
FEB 16...	7.2	133	.051	.53	3.60	4.0	4.5	.920	8.1
MAR 22...	9.3	157	.071	.67	5.10	6.6	7.3	1.25	10
MAY 17...	11	179	.145	.99	E6.45	7.6	8.6	1.66	6.6
AUG 09...	12	180	.330	1.1	5.00	10	11	1.95	6.7
30...	12	186	.230	1.0	5.00	9.1	10	1.95	6.0

01467140 COOPER RIVER AT LAWNSIDE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1330	<.5	10	5	<10	290	1	10	20

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	3400	3	80	.2	3	<1	50	18

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi upstream from North Branch Cooper River, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--17.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for period of no gage-height record Dec. 25 to 27, which are fair. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants.

AVERAGE DISCHARGE.--21 years, 36.3 ft^3/s, 29.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s Aug. 28, 1971, gage height, 5.46 ft; minimum, 0.8 ft^3/s Nov. 13, 1972, gage height, 1.07 ft regulation from unknown source; minimum daily, 1.2 ft^3/s June 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 14	0030	548	2.79	May 30	0745	573	2.83
Apr. 5	0730	*593	2.86				

Minimum discharge, 17 ft^3/s Oct. 10, gage height, 1.47 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	26	27	32	40	47	39	67	50	24	21
2	21	20	25	26	28	35	42	36	44	36	31	20
3	20	24	38	27	31	33	41	38	43	29	25	27
4	21	52	165	27	59	32	56	64	39	26	25	82
5	21	27	72	29	36	61	400	52	49	36	31	29
6	26	23	59	29	31	79	102	38	35	166	25	24
7	23	22	48	29	28	45	63	38	33	181	24	21
8	20	20	30	27	26	37	48	99	33	78	24	20
9	19	22	29	27	27	41	42	147	31	36	22	20
10	19	62	27	30	28	42	43	45	29	31	22	21
11	20	84	27	43	33	43	42	34	31	34	23	21
12	59	34	87	28	33	41	42	32	33	47	105	22
13	38	25	160	26	34	150	40	30	30	29	78	20
14	43	24	107	28	37	351	41	35	48	26	32	20
15	26	78	48	27	191	115	62	33	31	24	27	28
16	22	191	34	25	77	74	164	32	29	25	25	24
17	20	38	30	25	44	58	76	28	32	29	24	22
18	20	27	29	26	40	47	53	28	64	115	23	22
19	26	26	29	26	35	43	46	29	81	49	22	21
20	21	26	26	25	34	41	42	29	33	29	24	21
21	23	128	25	24	32	44	41	31	26	41	22	21
22	20	41	174	23	30	40	39	28	25	49	22	20
23	53	27	78	24	46	36	77	49	24	31	23	20
24	89	55	36	48	154	34	59	47	34	27	24	20
25	32	165	45	93	49	67	47	29	202	24	21	20
26	25	64	27	67	37	72	43	29	45	24	21	20
27	22	34	30	50	33	44	42	33	28	31	22	20
28	23	32	104	38	131	173	39	89	26	25	22	46
29	20	34	121	32	66	363	68	194	25	24	22	31
30	20	27	43	32	---	108	44	422	100	25	22	24
31	20	---	29	47	---	57	---	200	---	26	23	---
TOTAL	851	1452	1808	1035	1462	2446	1991	2057	1350	1403	880	748
MEAN	27.5	48.4	58.3	33.4	50.4	78.9	66.4	66.4	45.0	45.3	28.4	24.9
MAX	89	191	174	93	191	363	400	422	202	181	105	82
MIN	19	20	25	23	26	32	39	28	24	24	21	20
CFSM	1.62	2.85	3.43	1.96	2.96	4.64	3.91	3.91	2.65	2.66	1.67	1.46
IN.	1.86	3.18	3.96	2.26	3.20	5.35	4.36	4.50	2.95	3.07	1.93	1.64

CAL YR 1983 TOTAL 16424 MEAN 45.0 MAX 589 MIN 14 CFSM 2.65 IN. 35.94
WTR YR 1984 TOTAL 17483 MEAN 47.8 MAX 422 MIN 19 CFSM 2.81 IN. 38.26

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood Terrace, 1,000 ft upstream from Bull Run, and 2.0 mi northeast of Fairview.

DRAINAGE AREA.--19.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN										
23...	0915	--	165	7.1	.5	13.3	90	4.5	80	490
MAR										
21...	0800	64	146	7.2	5.0	11.3	90	1.7	490	50
MAY										
17...	0830	59	134	7.2	11.0	9.5	86	1.8	330	140
JUL										
17...	0845	90	120	7.1	24.0	6.8	81	2.0	>24000	5400
AUG										
09...	0800	41	122	7.1	23.5	7.7	91	2.4	220	790
SEP										
26...	0915	39	129	7.2	21.0	7.3	82	1.2	80	1400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN									
23...	43	12	3.1	10	2.6	24	17	17	<.10
MAR									
21...	41	12	2.8	8.6	2.3	20	17	14	<.10
MAY									
17...	39	11	2.8	7.5	2.3	21	14	13	.10
JUL									
17...	38	11	2.6	5.8	2.6	23	13	11	<.10
AUG									
09...	36	9.9	2.7	7.1	2.4	22	11	13	<.10
SEP									
26...	37	9.9	2.9	8.2	2.6	22	13	14	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
23...	7.9	101	.022	1.8	.410	E.76	--	.080	2.5
MAR									
21...	5.3	92	.012	1.3	.180	.71	2.0	.130	3.9
MAY									
17...	4.9	91	.035	1.3	.250	.87	2.2	.120	3.2
JUL									
17...	4.9	100	.039	.91	.200	.81	1.7	.160	5.1
AUG									
09...	4.3	86	.018	1.2	.090	.66	1.8	.160	4.2
SEP									
26...	5.1	72	.025	1.5	.150	.78	2.3	.110	2.6

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
SEP											
26...	0915	<.5	.6	6.1	10	2	<1	<10	50	3	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP											
26...	<10	8	<10	3	<1	1700	6400	8	160	50	21

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
26...	<.1	<.01	<1	<1	<1	20	30	<1	29	<1.0	<.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
SEP											
26...	16	6.7	1.1	1.0	<.1	.4	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP										
26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi upstream from mouth. Water-quality sampling site 1.6 mi upstream.

DRAINAGE AREA.--1,893 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 301, 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft National Geodetic Vertical Datum of 1929. Prior to November 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. November 26, 1956, to October 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--Water-discharge records good. Flow regulated by Still Creek Reservoir (sta 01469200) since February 1933, Blue Marsh Reservoir (sta 01470870) since April 1979, Green Lane Reservoir (sta 01472200) since December 1956 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft^3. Records of discharge do not include diversion above station by City of Philadelphia for municipal water supply.

AVERAGE DISCHARGE.--53 years, 2,972 ft^3/s, 21.32 in/yr, adjusted for diversion from October 1931 to September 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s June 23, 1972, gage height, 14.65 ft; no flow over dam at times; minimum daily, 0.6 ft^3/s Sept. 2, 1966.

EXTREMS OUTSIDE PERIOD OF RECORD.--Flood of October 4, 1869, reached a stage of 17.0 ft, discharge, 135,000 ft^3/s, from rating extended above 46,000 ft^3/s. Flood of March 1, 1902, reached a stage of 14.8 ft, discharge, 98,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63,400 ft^3/s, July 7, gage height, 12.31 ft; minimum, 224 ft^3/s Oct. 1, gage height 5.66 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	711	6270	3550	2240	5140	7070	3910	13100	15400	2270	1830
2	464	694	4780	3340	1780	4180	6810	4010	9090	14200	2130	1300
3	540	708	4090	3260	1840	3810	6710	3650	7050	6410	1980	1210
4	462	760	7440	3010	5130	3690	6290	15200	6170	4980	2050	1850
5	569	661	9120	2900	7330	3760	28000	13600	4800	4280	2430	2170
6	686	701	6110	3110	4700	5660	26000	8870	4120	6390	2550	1620
7	700	718	7340	3100	3440	5080	20100	6780	3790	38400	2130	1120
8	601	648	6550	3000	2680	4170	12500	6330	3440	14400	2280	1040
9	544	628	5410	2770	2350	3700	8770	9140	2990	8350	2050	975
10	526	779	4520	2610	2300	3410	7090	6980	2700	6390	2140	939
11	552	1160	3940	3130	2500	3310	6220	5700	2580	6280	4060	943
12	959	1720	5990	2510	4420	3160	5650	5210	2440	6200	4060	991
13	1130	1960	38700	2210	4460	3440	5130	4950	2330	4500	4010	1070
14	1560	1490	39400	2270	4450	8750	4790	4400	2730	3660	3060	990
15	1180	1670	26300	2190	17100	7470	4800	4120	2390	3270	2400	1130
16	935	9490	15400	2070	23100	6560	7370	3760	2250	3070	2030	1170
17	743	7820	11600	1860	12500	5810	6910	3480	2000	3260	1810	1010
18	645	4980	9610	2120	9560	4950	5460	3160	2790	3190	1640	910
19	736	3770	6940	2100	8050	4530	4950	3120	4890	4100	1570	850
20	1120	3180	5250	1850	6460	4320	4690	3140	3960	3300	1560	817
21	879	5920	4550	1480	5500	4410	4330	3400	2630	4030	1680	751
22	585	6510	7980	1350	4760	6380	4010	3900	2170	3760	1530	777
23	753	4340	11300	1300	4380	6090	4270	3490	2010	2930	1350	770
24	5770	3320	6930	1670	10200	5270	4490	4360	2170	2560	1770	763
25	4190	7810	4970	2520	8290	4810	4090	3840	9430	2370	1610	745
26	2450	10700	4440	4180	6510	4590	3710	3240	7900	2200	1220	709
27	1580	6760	4000	4710	5550	3840	3370	5660	5160	5400	1130	708
28	1160	5220	5220	4840	5680	4550	3060	3980	4070	6620	1050	977
29	917	10300	11400	3660	6340	13500	3970	12600	2960	3900	1030	973
30	814	8300	6820	2870	---	11100	4230	43500	2550	3110	1010	939
31	779	---	4280	2600	---	7930	---	20200	---	2560	1310	---
TOTAL	34874	113428	296650	84140	183600	167370	224840	227680	126660	199470	62900	32047
MEAN	1125	3781	9569	2714	6331	5399	7495	7345	4222	6435	2029	1068
MAX	5770	10700	39400	4840	23100	13500	28000	43500	13100	38400	4060	2170
MIN	345	628	3940	1300	1780	3160	3060	3120	2000	2200	1010	708
†	254	226	256	269	264	254	257	252	285	269	279	255

CAL YR 1983 TOTAL 1458594 MEAN 3996 MAX 39400 MIN 230
WTR YR 1984 TOTAL 1753659 MEAN 4791 MAX 43500 MIN 345

† Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by City of Philadelphia.

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 28, 1969, at datum 7.96 ft higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--18 years, 42.4 ft³/s, 19.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,530 ft³/s Aug. 10, 1967, elevation, 17.44 ft, present datum; minimum daily, 2.9 ft³/s July 14, Aug. 27, 28, Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Dec. 13	0745	349	10.75	Apr. 5	1300	*840	12.95
Dec. 22	1930	408	11.00	May 30	1145	546	11.87
Dec. 29	0030	438	11.24	July 7	2230	582	12.04
Mar. 14	0930	508	11.68	July 18	1145	337	10.67
Mar. 29	1445	417	11.18				

Minimum discharge, 16 ft³/s Oct. 9, 10, 11, gage height, 6.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	34	43	43	47	64	49	93	117	34	20
2	22	21	33	40	38	43	57	42	59	71	33	19
3	20	21	37	40	44	41	56	42	49	42	36	21
4	18	29	154	40	97	39	63	50	44	36	41	38
5	18	25	104	40	55	49	612	39	39	36	37	28
6	18	22	62	40	45	76	211	33	37	160	35	23
7	17	21	61	39	40	53	94	34	36	264	32	22
8	17	21	44	37	37	45	73	87	34	204	30	21
9	17	21	41	35	36	49	63	105	32	62	29	21
10	16	40	38	37	36	48	60	54	30	47	31	21
11	16	61	36	52	40	49	57	45	27	103	32	21
12	35	36	77	40	40	49	59	43	28	99	55	21
13	31	28	289	36	38	86	61	40	28	52	66	21
14	28	25	166	37	39	441	56	37	57	42	37	20
15	22	64	73	37	124	183	60	36	35	38	32	23
16	20	157	58	34	95	90	98	36	31	36	29	22
17	19	54	53	34	58	69	84	34	33	55	27	21
18	19	36	48	35	54	58	63	34	78	136	26	20
19	20	32	47	36	48	55	57	43	104	85	26	20
20	20	31	44	35	44	52	53	37	50	45	26	20
21	19	101	43	36	41	52	49	35	37	72	24	20
22	19	55	212	38	38	52	45	33	33	87	23	19
23	28	36	146	38	44	45	67	36	31	72	24	18
24	48	43	68	38	140	42	68	43	35	48	24	18
25	35	139	58	99	66	55	55	33	136	40	22	18
26	27	84	60	126	48	82	49	31	61	36	22	18
27	23	46	57	107	43	56	45	30	40	38	21	18
28	22	40	150	69	70	126	43	48	39	43	22	25
29	21	39	208	46	67	352	71	94	36	37	22	28
30	21	36	64	42	---	176	57	440	57	37	22	23
31	21	---	49	49	---	82	---	223	---	36	22	---
TOTAL	696	1385	2614	1455	1608	2742	2550	1966	1429	2276	942	648
MEAN	22.5	46.2	84.3	46.9	55.4	88.5	85.0	63.4	47.6	73.4	30.4	21.6
MAX	48	157	289	126	140	441	612	440	136	264	66	38
MIN	16	21	33	34	36	39	43	30	27	36	21	18
CFSM	.84	1.72	3.13	1.74	2.06	3.29	3.16	2.36	1.77	2.73	1.13	.80
IN.	.96	1.92	3.61	2.01	2.22	3.79	3.53	2.72	1.98	3.15	1.30	.90

CAL YR 1983 TOTAL 18913 MEAN 51.8 MAX 861 MIN 14 CFSM 1.93 IN. 26.15
WTR YR 1984 TOTAL 20311 MEAN 55.5 MAX 612 MIN 16 CFSM 2.06 IN. 28.09

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 24...	0940	33	190	6.9	1.0	12.2	--	1.2	20	13
MAR 19...	1120	55	150	6.6	7.0	12.4	--	<1.1	<20	<2
MAY 16...	0955	36	173	7.1	11.0	10.2	--	<.9	130	170
JUL 11...	0930	131	120	6.6	20.0	7.4	--	2.7	16000	>2400
AUG 07...	0950	33	167	6.9	23.5	7.8	92	E1.4	310	1600

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 24...	63	18	4.5	5.7	3.3	22	30	13	.10
MAR 19...	53	15	3.7	5.1	2.7	14	31	11	.10
MAY 16...	58	17	3.7	5.6	2.9	22	27	12	.20
JUL 11...	40	12	2.5	3.0	3.2	16	20	8.1	.20
AUG 07...	57	17	3.6	4.5	3.3	28	23	11	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	9.6	122	.014	2.8	.100	.21	3.1	.090	2.1
MAR 19...	7.8	87	.007	1.9	.090	.30	2.2	.070	3.1
MAY 16...	8.2	123	.010	1.5	.130	.61	2.1	.120	2.6
JUL 11...	6.9	97	.032	.97	.110	1.2	2.2	.580	7.8
AUG 07...	9.1	112	.015	1.3	.060	.55	1.9	.160	3.7

01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft downstream of tributary from outflow of lake at Porches Mill, 1.0 mi north of Seven Stars, and 2.1 mi southeast of Auburn.

DRAINAGE AREA.--21.0 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 24...	1050	27	200	7.3	1.0	12.4	--	E1.0	20	17
MAR 19...	1000	39	170	6.4	7.0	11.0	--	<1.1	20	50
MAY 16...	1120	25	185	7.1	13.0	10.4	--	<1.1	50	170
JUL 11...	1040	77	144	6.5	20.5	6.2	--	2.3	>24000	>2400
AUG 07...	1100	22	185	6.9	23.0	7.2	84	E1.6	940	1600

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 24...	68	19	4.9	5.2	3.2	21	28	15	.20
MAR 19...	--	--	--	--	--	--	--	--	--
MAY 16...	64	18	4.6	4.1	2.9	22	25	14	.20
JUL 11...	39	11	2.9	2.4	4.5	14	19	8.3	.30
AUG 07...	67	19	4.7	3.9	3.4	28	22	14	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	11	141	.017	3.3	.110	.15	3.4	.100	3.0
MAR 19...	--	--	.010	2.4	<.050	.15	2.6	.090	3.6
MAY 16...	8.5	113	.019	2.4	.160	.70	3.1	.100	3.3
JUL 11...	6.5	102	.068	1.5	.210	1.8	3.3	1.46	9.2
AUG 07...	11	143	.021	2.0	.080	.66	2.7	.130	4.8

01481602 DELAWARE RIVER BELOW CHRISTINA RIVER AT WILMINGTON, DE

LOCATION.--Lat 39°43'00", long 75°31'03", New Castle County, DE, Hydrologic Unit 02040206, on right bank, 1,000 ft from mouth of Christina River at the Wilmington Marine Terminal at Wilmington, 2.0 mi upstream of Delaware Memorial Bridge, and at mile 69.70.

DRAINAGE AREA.--11,030 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--December 1982 to current year. July 1967 to May 1983 published as Delaware River at Delaware Memorial Bridge, at Wilmington, DE (sta. 01482100). Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is -18.05 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 1982, water-stage recorder at Delaware River at Delaware Memorial Bridge 2.0 mi downstream at datum 8.05 ft higher. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--Elevation records good. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Dec. 25-28, Dec. 31-Jan. 4, Jan. 12-24.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.88 ft Oct. 25, 1980; minimum, -5.86 ft Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.92 ft Dec. 4; minimum recorded, -4.84 ft Dec. 24.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.24	5.64	5.92	--	4.92	5.79	5.64	5.23	5.43	5.07	5.21	4.79
high tide	Date	25	15	4	--	18	29	17	4	3	1	25	30
Minimum	Elevation	-3.16	-3.05	-4.84	--	-3.06	-3.05	-2.05	-2.68	-2.33	-2.50	-2.45	-3.05
low tide	Date	29	13	24	--	26	1	21	16	15	25	2	26
Mean high tide		3.87	3.65	3.61	--	3.06	3.35	4.17	3.69	4.17	3.97	4.04	3.76
Mean water level		1.38	1.08	0.95	--	0.87	1.07	1.74	1.16	1.30	1.08	1.25	1.10
Mean low tide		-1.35	-1.63	-1.80	--	-1.60	-1.48	-0.96	-1.61	-1.75	-1.95	-1.75	-1.73

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1940, December 1941 to January 1985 (discontinued). Prior to October 1952, published as "Salem Creek at Woodstown".

REVISED RECORDS.--WSP 1432: 1951(M). WSP 1702: 1959.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 19.49 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 10.00 ft higher.

REMARKS.--Water-discharge records fair except those below 5 ft³/s, which are poor.

AVERAGE DISCHARGE.--42 years (water years 1943-84), 19.3 ft³/s, 17.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s Sept. 1, 1940, gage height, 17.98 ft, present datum, from floodmark, from rating curve extended above 220 ft³/s on basis of slope-area measurement of peak flow at site 0.5 mi downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

EXTREMES FOR CURRENT PERIOD.--Water year 1984: Peak discharges above base of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 28	2100	369	11.48	June 30	2100	581	12.06
Mar. 14	0100	451	11.93	July 1	1300	378	11.85
Apr. 5	0700	602	12.08	July 7	1500	*645	12.12

Minimum discharge, 3.2 ft³/s part or all of Oct. 7, 8, 9, 10, 11, 12, gage height 11.10 ft.

OCTOBER 1984 TO JANUARY 1985: Maximum discharge during period, 93 ft³/s Oct. 29, Dec. 6, gage height, 11.44 ft; minimum, 6.9 ft³/s Oct. 14, 15, 16, 17, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	6.9	17	19	23	24	33	23	41	224	16	7.6
2	9.2	8.6	16	18	17	20	28	17	21	53	14	6.9
3	8.0	10	19	17	18	18	28	16	17	30	15	8.2
4	9.4	15	109	18	57	16	35	22	15	23	32	20
5	8.3	14	52	19	29	25	382	16	12	24	17	14
6	5.8	10	38	19	22	48	93	13	10	69	14	8.9
7	4.8	12	36	18	19	27	48	14	8.9	305	12	6.9
8	3.8	10	24	16	16	22	33	35	7.8	79	12	6.5
9	4.2	9.0	21	15	15	24	28	57	6.9	37	10	6.9
10	3.2	16	20	16	16	21	26	27	6.7	27	11	6.9
11	3.2	32	19	32	19	22	24	22	5.3	51	26	7.9
12	8.9	20	50	19	20	22	23	20	5.0	148	29	8.9
13	14	14	168	16	19	80	23	18	5.7	42	39	8.6
14	13	11	91	16	21	253	23	15	17	27	21	9.2
15	9.2	27	40	16	101	77	28	14	9.0	21	15	21
16	7.2	80	27	14	55	45	58	14	7.8	19	12	15
17	6.1	24	22	14	34	32	53	14	9.4	119	11	11
18	5.0	15	21	15	36	27	35	13	91	147	8.6	8.9
19	6.9	12	19	15	29	24	28	12	69	88	9.7	8.6
20	6.1	12	17	13	24	23	26	11	27	39	11	8.6
21	5.1	70	16	12	20	32	25	12	14	128	8.6	7.8
22	6.8	25	122	12	17	31	23	10	11	101	8.6	7.1
23	11	16	59	13	23	24	38	10	14	54	11	9.5
24	27	23	30	19	120	22	37	15	18	32	11	9.0
25	15	109	24	123	40	30	29	11	37	25	6.6	7.5
26	9.4	50	15	119	27	53	25	9.2	15	21	5.4	8.2
27	7.9	28	15	73	22	31	23	8.8	13	24	6.9	7.4
28	6.9	23	109	41	46	88	21	11	12	25	6.9	12
29	6.7	22	92	25	38	158	31	30	14	23	32	17
30	5.4	19	32	21	---	94	26	211	188	22	20	12
31	6.9	---	22	33	---	45	---	107	---	22	11	---
TOTAL	250.5	743.5	1362	836	943	1458	1333	828.0	728.5	2049	463.3	298.0
MEAN	8.08	24.8	43.9	27.0	32.5	47.0	44.4	26.7	24.3	66.1	14.9	9.93
MAX	27	109	168	123	120	253	382	211	188	305	39	21
MIN	3.2	6.9	15	12	15	16	21	8.8	5.0	19	5.4	6.5
CFSM	.55	1.70	3.01	1.85	2.23	3.22	3.04	1.83	1.66	4.53	1.02	.68
IN.	.64	1.89	3.47	2.13	2.40	3.71	3.40	2.11	1.86	5.22	1.18	.76

CAL YR 1983 TOTAL 9853.2 MEAN 27.0 MAX 609 MIN 3.2 CFSM 1.85 IN. 25.11
WTR YR 1984 TOTAL 11292.8 MEAN 30.9 MAX 382 MIN 3.2 CFSM 2.12 IN. 28.77

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	10	17	12								
2	41	9.2	15	13								
3	20	8.6	16	14								
4	13	8.6	18	17								
5	10	17	15	21								
6	9.0	15	60	22								
7	8.6	10	31	21								
8	8.6	8.6	22	17								
9	9.6	8.6	18	15								
10	10	8.6	16	12								
11	11	10	15	13								
12	10	14	14	14								
13	9.2	11	14	14								
14	6.9	8.7	13	14								
15	6.9	8.7	14	29								
16	6.9	15	14	28								
17	8.4	14	13	16								
18	8.9	12	13	12								
19	9.9	18	13	12								
20	10	16	14	12								
21	11	12	13	8.4								
22	10	10	18	8.6								
23	26	10	16	8.6								
24	22	10	14	8.6								
25	17	10	14	8.4								
26	12	10	12	8.2								
27	10	9.3	12	8.2								
28	12	9.5	13	8.2								
29	51	23	12	8.2								
30	19	22	12	8.0								
31	13	---	12	8.0								
TOTAL	459.9	357.4	513	419.4								
MEAN	14.8	11.9	16.5	13.5								
MAX	51	23	60	29								
MIN	6.9	8.6	12	8.0								
CFSM	1.01	.82	1.13	.92								
IN.	1.17	.91	1.31	1.07								

CAL YR 1984 TOTAL 10267.1 MEAN 28.1 MAX 382 MIN 5.0 CFSM 1.92 IN. 26.16

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 17...	1040	14	252	6.7	1.0	12.8	--	3.6	70	79
APR 03...	0940	28	188	6.7	11.0	10.6	--	2.6	20	27
MAY 23...	1100	8.6	235	8.0	24.0	9.0	--	4.5	220	49
JUL 25...	1100	26	174	7.3	27.0	7.4	--	3.5	490	350
AUG 07...	1200	14	220	7.2	26.5	7.7	96	3.5	130	540

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 17...	84	18	9.6	8.9	4.3	19	39	23	.10
APR 03...	63	14	6.8	6.3	5.2	16	33	15	.10
MAY 23...	82	18	8.9	6.1	3.7	25	37	19	.10
JUL 25...	61	14	6.3	4.2	5.4	29	25	12	.20
AUG 07...	75	17	8.0	5.6	5.9	31	30	17	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 17...	9.0	170	.025	4.4	.120	.85	5.2	.110	3.0
APR 03...	6.5	113	.029	3.0	.180	E1.2	--	.190	5.2
MAY 23...	5.5	170	.044	2.7	.260	1.0	3.7	.130	3.9
JUL 25...	8.0	122	.048	1.5	.130	1.0	2.5	.260	9.1
AUG 07...	1.5	145	.057	2.2	.050	1.2	3.4	.190	7.2

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY									
23...	1100	<.5	40	1	<10	80	1	10	3

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
23...	890	5	50	<.1	6	<1	40	<1

RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsville Dam on East Branch Delaware River, and 1.6 mi east of Downsville, NY. DRAINAGE AREA, 371 mi^2. PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft, and crest of spillway, elevation, 1,280.0 ft. Capacity, at crest of spillway 149,700 mil gal; at minimum operating level, 9,609 mil gal; at still of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see Delaware River Basin, diversions), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 154,027 mil gal Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal Dec. 26, 1964, elevation, 1,151.92 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 153,857 mil gal May 30, elevation, 1,282.18 ft; minimum, 71,319 mil gal Nov. 24, elevation, 1,228.18 ft.

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville, NY. DRAINAGE AREA, 454 mi^2. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WRD-NY 1972: 1966. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 30, 1963, usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see Delaware River Basin, diversion); is released in Delaware River for downstream low flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to Jan. 29. 1964. Records furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 108,116 mil gal Mar. 15, 1977, elevation, 1,155.85 ft; minimum observed (after first filling), 11,901 mil gal Nov. 7, 1968, elevation, 1,066.24 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 105,136 mil gal May 31, elevation, 1,154.05 ft; minimum, 19,332 mil gal Nov. 21, elevation, 1,079.09 ft.

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, PA, 0.4 mi upstream from highway bridge and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2. PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungaged bedrock spillway at elevation 1,205.00 ft; storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool elevation, 1,125.00 ft capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,920 acre-ft Sept. 27, 1964, elevation, 1,123.20 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 4,650 acre-ft Dec. 13, elevation, 1,129.11 ft; minimum, 3,020 acre-ft Oct. 3,11, 12, elevation, 1,123.30 ft.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15,55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, PA, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi^2. PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft; storage began in October 1959. Capacity at elevation 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft June 19, 1973, elevation 1,017.40 ft; no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,525 acre-ft Apr. 6, elevation, 1,007.10 ft; no storage Oct. 6, minimum elevation, 975.79 ft.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, PA, 1.2 mi south of and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi^2. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam with concrete spillway at elevation 1,176.00 ft in two sections. Spillway equipped with roller gate, 14 ft high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft, top of gates, is 209,300 acre-ft of which 157,800 acre-ft is controlled storage above elevation 1,160.00 ft, minimum pool. Reservoir is used for generation of hydrolelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 150,840 acre-ft May 29, 30, elevation, 1,188.8 ft; minimum, 85,940 acre-ft Jan. 27, elevation, 1,177.1 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville, NY. DRAINAGE AREA, 118 mi^2 excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft.

Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft^3 between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,461.6 mil ft^3 Mar. 14, 1977, elevation, 1,071.8 ft; minimum (after first filling), -141.4 mil ft^3 Dec. 2, 1938, elevation, 987.5 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,359 mil ft^3 Apr. 14, elevation, 1,069.3 ft; minimum, 447.8 mil ft^3 Oct. 31, Nov. 11, elevation, 1,040.5 ft.

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake, NY. DRAINAGE AREA, 23.2 mi^2. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959(M). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft.

Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft^3 between elevations 1,165.0 ft, minimum operating pool, and operating pool, about 26.8 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,171.2 mil ft^3 July 20, 1945, elevation, 1,222.0 ft. minimum observed (after first filling), -26.8 mil ft^3 Nov. 15, 1928, elevation, 1,144.5 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 1,163.8 mil ft^3 June 1, elevation, 1,221.8 ft; minimum observed, 211.4 mil ft^3 Nov. 30, Dec. 1, elevation, 1,185.0 ft.

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville, NY. DRAINAGE AREA, 6.46 mi^2 excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WRD NY-75-1: 1974(m). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft.

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft^3 between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft^3. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 145.44 mil ft^3 July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft^3 Mar. 16, 1963, elevation, 1,038.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 136.9 mil ft^3 June 1, elevation, 1,072.1 ft, minimum observed, 3.56 mil ft^3 Oct. 31, Nov. 1, elevation, 1,045.2 ft.

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, NY, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi southwest of Neversink, NY. DRAINAGE AREA, 91.8 mi^2. PERIOD OF RECORD, June 1953 to current year. Nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway, 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage belowand outlet sill at elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see Delaware River basin, diversions); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 37,978 mil gal Apr. 25, 1961, elevation, 1,441.67 ft; minimum observed (after first filling), 1,985 mil gal Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 37,768 mil gal May 30, elevation, 1,441.25 ft; minimum observed, 15,737 mil gal Nov. 21, elevation, 1,385.87 ft.

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 mi northwest of White Haven, PA. DRAINAGE AREA, 289 mi^2. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft; storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft or (conservation pool). Dead storage is 2,000 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft June 26, 1972, elevation, 1,398.20 ft; minimum (after establishment of conservation pool), 981 acre-ft July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 41,200 acre-ft Apr. 7, elevation, 1,396.73 ft; minimum, 1,520 acre-ft Oct. 24, elevation, 1,295.19 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 0.7 mi upstream from Hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10 mi northeast of Palmerton, PA. DRAINAGE AREA, 16.5 mi². PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft; storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,560 acre-ft Apr. 6, 1984, elevation, 1,001.19 ft; minimum, 176 acre-ft Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,560 acre-ft Apr. 6, elevation, 1,001.19 ft; minimum, 14,640 acre-ft Nov. 28, elevation, 987.40 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 1.6 mi upstream from mouth, 2.4 mi south of Hatchery, and 7.5 mi northeast of Palmerton, PA. DRAINAGE AREA, 22.2 mi². PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft; storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft May 23, 1942, elevation, 822.93 ft; minimum (after first filling), 2,680 acre-ft Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,450 acre-ft Apr. 6, elevation, 821.49 ft; minimum, 10,660 acre-ft Sept. 30, elevation, 874.87 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi upstream from gaging station on Pohopoco Creek, 0.55 mi upstream from Sawmill Run and 2.3 mi northeast of Parryville, PA. DRAINAGE AREA, 96.3 mi². PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft; storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum (conservation) pool elevation, 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents 49,730 acre-ft Jan. 29, 1976, elevation, 636.30 ft; minimum, 16,343 acre-ft Jan. 31, Feb 1, 1981, elevation, 591.41 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents 48,300 acre-ft Apr. 7, elevation, 634.98 ft; minimum, 37,200 acre-ft Oct. 18, elevation, 623.54 ft.

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.3 mi². PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. REVISED RECORDS, WDR NJ-82-2: Drainage area; WDR NJ-83-2: Corrections 1981 (m/m). GAGE, max-mim recorder and staff gage. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft National Geodetic Vertical Datum of 1929.

Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft in 1925. Usable capacity, 7,459,000,000 gal between (gage height -2.6 ft, sills of gates and 9.00 ft, crest of spillway). Flow regulated by four gates (3 by 5 ft, also by one 24-inch pipe with gate valve to recreation fountain 250 ft downstream from dam. Dead storage, about 8,117,000,000 gal. Figures given herein represent usable capacity. Lake used for recreation. CORRECTIONS.--Once-daily staff readings furnished by New Jersey Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,777,000,000 gal August 19, 1955 correction, gage height, 10.55 ft; minimum, 1,525,000,000 gal Dec. 29, 1960, gage height, 0.65 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,648,000,000 gal Apr. 7, gage height, 10.40 ft; minimum, 5,365,000,000 gal Dec. 27, gage height, 6.48 ft.

01459350 NOCKAMIXON RESERVOIR.--Lat 40°28'13", long 75°11'10", Bucks County, PA, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 2.9 mi upstream from Mink Run and 1.3 mi east of Ottsville. DRAINAGE AREA, 73.3 mi². PERIOD OF RECORD, December 1973 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began Decmeber 1973. Total capacity 66,500 acre-ft at elevation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control. Records furnished by Pennsylvania Department of Environmental Resources.

EXTRMES FOR PERIOD OF RECORD: Maximum contents, 44,380 acre-ft Jan. 20, 1979, elevation 397.85 ft; minimum (after first filling) 15,900 acre-ft around Dec. 31, 1975, elevation 372.78 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 43,850 acre-ft July 7, elevation 397.50 ft; minimum, 38,800 acre-ft Nov. 6, elevation 394.00 ft.

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30". Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi upstream from mouth and 2.3 mi north of Hometown, PA. DRAINAGE AREA, 8.5 mi². PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earth fill dam, with ungated concrete spillway at elevation 1,182.00 ft; storage began in February 1933. Capacity at elevation, 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,500 acre-ft Apr. 6, elevation, 1,182.7 ft; minimum, 6,940 acre-ft Nov. 13, elevation, 1,177.25 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, PA, Hydrologic Unit 02040203, at dam on
Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek, 1.0 mi northeast of Blue Marsh, PA,
1.9 mi upstream from Reber's Bridge, and 5.1 mi southeast of Bernville, PA. DRAINAGE AREA, 175 mi². PERIOD OF
RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum
of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft. Storage began
April 23, 1979. Capacity at elevation, 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Reservoir is
used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by
Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 39,480 acre-ft Apr. 16, 1983, elevation, 301.65 ft; minimum,
17,440 acre-ft Nov. 28, 1983 elevation, 284.49 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 33,000 acre-ft Dec. 14, elevation, 297.70 ft; minimum,
16,700 acre-ft Mar. 26, elevation, 283.98 ft.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam
on Perkiomen Creek at Green Lane, PA, 0.4 mi west of Green Lane and 2.1 mi upstream from Unami Creek. DRAINAGE AREA,
70.9 mi². PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National
Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft; storage began
December 21, 1956. Capacity at spillway level, elevation 286.00 ft, 13,430 acre-ft. Reservoir is used for municipal
water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through
dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft June 23, 1972, elevation, 290.05 ft; minimum
(after first filling), 1,270 acre-ft Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 15,340 acre-ft July 7, elevation, 288.15 ft; minimum,
10,550 acre-ft Oct. 12, elevation, 282.28 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01416900 PEPACTON RESERVOIR ‡			01424997 CANNONSVILLE RESERVIOR ‡			01428900 PROMPTON RESERVOIR †		
Sept. 30	1,252.33	103,600	-	1,111.61	48,179	-	1,123.34	3,040	-
Oct. 31	1,239.01	84,850	-936	1,089.28	26,735	-1,070	1,123.56	3,100	+1.0
Nov. 30	1,229.01	72,460	-639	1,085.36	23,702	-156	1,126.31	3,870	+12.9
Dec. 31	1,242.10	88,996	+825	1,117.84	55,262	+1,575	1,125.56	3,660	-3.4
CAL YR 1983	-	-	+67.9	-	-	+103	-	-	-0.07
Jan. 31	1,239.18	85,075	-196	1,123.61	62,191	+346	1,125.19	3,550	-1.8
Feb. 29	1,258.24	112,667	+1,472	1,143.41	88,714	+1,415	1,125.83	3,730	+3.1
Mar. 31	1,261.33	117,584	+245	1,150.47	99,374	+532	1,125.80	3,720	-.2
Apr. 30	1,280.12	150,021	+1,673	1,151.03	100,275	+46.5	1,125.83	3,730	+.2
May 31	1,281.40	152,398	+119	1,153.45	104,170	+194	1,128.19	4,390	+10.7
June 30	1,276.14	142,777	-496	1,147.94	95,485	-448	1,127.27	4,140	-4.2
July 31	1,270.78	133,348	-471	1,143.14	88,324	-357	1,125.38	3,610	-8.6
Aug. 31	1,264.65	122,996	-517	1,130.93	71,488	-840	1,123.87	3,180	-7.0
Sept. 30	1,257.13	110,929	-622	1,116.29	53,454	-930	1,123.43	3,060	-2.0
WTR YR 1984	-	-	+31.0	-	-	+22.3	-	-	+.03

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)
	01429400 GENERAL EDGAR JADWIN RESERVOIR †			01431700 LAKE WALLENPAUPACK †			01433000 SWINGING BRIDGE RESERVOIR †		
Sept. 30	975.85	0	-	1,178.5	93,500	-	1,041.1	462	-
Oct. 31	976.00	0	0	1,179.0	96,200	+43.9	1,040.5	448	-5.2
Nov. 30	978.20	0	0	1,181.5	109,750	+228	1,058.5	959	+197
Dec. 31	977.61	0	0	1,181.4	109,200	-8.9	1,063.9	1,150	+71.3
CAL YR 1983	-	-	0	-	-	+2.3	-	-	+2.8
Jan. 31	976.91	0	0	1,177.5	88,100	-343	1,063.2	1,124	-9.7
Feb. 29	981.00	80	+1.4	1,181.4	109,200	+367	1,068.0	1,307	+73.0
Mar. 31	977.98	0	-1.4	1,178.7	94,580	-238	1,061.2	1,052	-95.2
Apr. 30	978.63	0	0	1,184.6	125,960	+527	1,066.4	1,245	+74.5
May 31	993.55	970	+15.8	1,187.8	145,060	+310	1,068.5	1,327	+30.6
June 30	982.60	140	-13.9	1,185.3	130,880	-238	1,062.4	1,095	-89.5
July 31	976.30	0	-2.3	1,182.3	114,150	-272	1,064.4	1,169	+27.6
Aug. 31	975.94	0	0	1,179.6	99,440	-239	1,062.4	1,095	-27.6
Sept. 30	976.01	0	0	1,178.8	95,120	-72.6	1,063.1	1,121	+10.0
WTR YR 1984	-	-	0	-	-	+2.2	-	-	+20.8

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)
	01433100	TORONTO RESERVOIR †		01433200	CLIFF LAKE RESERVOIR †		01435900	NEVERSINK RESERVOIR ‡	
Sept. 30	1,196.0	422	-	1,048.0	9.8	-	1,401.87	21,005	-
Oct. 31	1,196.4	431	+3.4	1,045.2	3.6	-2.3	1,391.22	17,398	-180
Nov. 30	1,185.0	211	-84.9	1,061.0	59.4	+21.5	1,389.48	16,848	-28.4
Dec. 31	1,193.5	368	+58.6	1,064.4	79.8	+7.6	1,405.97	22,499	+282
CAL YR 1983	-	-	+3.6	-	-	+0.5	-	-	+33.8
Jan. 31	1,196.5	434	+24.6	1,062.8	69.9	-3.7	1,402.92	21,382	-55.8
Feb. 29	1,206.0	671	+94.6	1,069.0	112	+16.8	1,421.53	28,687	+390
Mar. 31	1,206.1	674	+1.1	1,061.9	64.5	-17.7	1,425.01	30,179	+74.5
Apr. 30	1,217.3	1,005	+128	1,067.5	101	+14.1	1,438.13	36,228	+312
May 31	1,221.7	1,160	+57.9	1,071.7	134	+12.3	1,440.63	37,459	+61.4
June 30	1,216.6	981	-69.1	1,068.2	106	-10.8	1,431.85	33,249	-217
July 31	1,215.7	952	-10.8	1,069.6	116	+3.7	1,425.16	30,245	-150
Aug. 31	1,207.5	712	-89.6	1,064.2	78.5	-14.0	1,413.10	25,233	-250
Sept. 30	1,196.8	440	-105	1,064.6	81.1	+1.0	1,401.50	20,873	-225
WTR YR 1984	-	-	+.6	-	-	+2.3	-	-	-.6

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01447780	FRANCIS E. WALTER LAKE ‡		01449400	PENN FOREST RESERVOIR †		01449700	WILD CREEK RESERVOIR †	
Sept. 30	1,300.16	2,020	-	993.60	17,140	-	815.27	10,770	-
Oct. 31	1,307.71	2,810	+12.8	989.94	15,620	-24.7	815.36	10,800	+0.5
Nov. 30	1,305.63	2,580	-3.9	987.78	14,790	-13.9	816.27	11,050	+4.2
Dec. 31	1,306.23	2,650	+1.1	997.80	18,990	+68.3	819.20	11,840	+12.8
CAL YR 1983	-	-	+.8	-	-	+3.2	-	-	+1.9
Jan. 31	1,300.79	2,080	-9.3	1,000.15	20,070	+17.6	816.03	10,990	-13.8
Feb. 29	1,304.77	2,480	+7.0	1,000.26	20,130	+1.0	820.15	12,040	+18.3
Mar. 31	1,296.79	1,660	-13.3	1,000.18	20,080	-.8	820.13	12,040	0
Apr. 30	1,300.50	2,050	+6.6	1,000.21	20,100	+.3	820.21	12,060	+.3
May 31	1,363.45	17,900	+258	1,000.69	20,380	+4.6	821.04	12,310	+4.1
June 30	1,311.80	3,310	-245	1,000.33	20,170	-3.5	820.21	12,060	-4.2
July 31	1,300.50	2,050	-20.5	1,000.07	20,020	-2.4	820.05	12,020	-.7
Aug. 31	1,302.97	2,300	+4.1	999.90	19,930	-1.5	817.21	11,310	-11.5
Sept. 30	1,300.00	2,000	-5.0	997.03	19,640	-21.7	815.92	10,960	-5.9
WTR YR 1984	-	-	-.03	-	-	+2.1	-	-	+.3

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Gage Height (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01449790	BELTZVILLE LAKE †		01455400	LAKE HOPATCONG ‡		01459350	NOCKAMIXON RESERVOIR †	
Sept. 30	625.60	39,000	-	8.77	7,268	-	394.40	39,360	-
Oct. 31	624.15	37,700	-21.1	9.06	7,509	+12.0	394.10	38,940	-6.8
Nov. 30	628.52	41,700	+67.0	7.48	6,216	-66.7	395.40	40,760	+30.6
Dec. 31	627.96	41,200	-8.1	6.74	5,630	-29.2	395.05	40,270	-8.0
CAL YR 1983	-	-	+35.0	-	-	+8.7	-	-	-0.1
Jan. 31	628.04	41,300	+1.6	6.76	5,646	+.8	395.15	40,410	+2.3
Feb. 29	627.88	41,100	-3.5	7.78	6,458	+43.3	395.20	40,480	+1.2
Mar. 31	627.65	40,900	-3.3	9.18	7,610	+57.5	395.70	41,180	+11.4
Apr. 30	628.18	41,400	+8.4	9.26	7,677	+3.4	395.20	40,480	-11.8
May 31	632.42	45,600	+68.0	10.02	8,322	+32.2	395.15	40,410	-1.1
June 30	628.22	41,500	-69.0	9.42	7,812	-26.3	396.45	42,280	+31.4
July 31	628.08	41,300	-3.3	9.12	7,560	-12.6	395.40	40,760	-24.7
Aug. 31	628.15	41,400	+1.6	8.66	7,177	-19.1	394.80	39,920	-13.6
Sept. 30	627.69	41,000	-6.7	8.20	6,799	-19.5	394.65	39,710	-3.5
WTR YR 1984	-	-	+2.8	-	-	-2.0	-	-	+.5

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Gage Height (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01469200	STILL CREEK	RESERVOIR †	01470870	BLUE MARSH	LAKE †	01472200	GREEN LANE	RESERVOIR †
Sept. 30	1,179.00	7,430	-	290.16	23,100	-	282.60	10,760	-
Oct. 31	1,177.75	7,080	-5.7	209.17	18,200	-79.7	285.26	12,770	+32.7
Nov. 30	1,178.00	7,150	+1.2	285.34	18,000	-3.4	286.17	13,580	+13.6
Dec. 31	1,182.00	8,290	+18.5	285.58	18,200	+3.3	286.00	13,430	-2.4
CAL YR 1983	-	-	-0.3	-	-	+.9	-	-	+.1
Jan. 31	1,182.00	8,290	0	285.12	17,700	-8.1	285.96	13,400	-.5
Feb. 29	1,182.10	8,320	+.5	284.73	17,400	-5.2	286.12	13,540	+2.4
Mar. 31	1,182.10	8,320	0	285.81	18,400	+16.3	286.24	13,640	+1.6
Apr. 30	1,182.10	8,320	0	290.10	23,000	+77.3	286.05	13,480	-2.7
May 31	1,182.30	8,380	+1.0	293.95	27,800	+78.0	286.47	13,850	+6.0
June 30	1,182.30	8,320	0	290.62	23,600	-70.5	286.01	13,440	-6.9
July 31	1,181.10	8,020	-5.9	289.90	22,800	-13.0	286.01	13,440	0
Aug. 31	1,181.10	8,020	0	290.19	23,100	+4.9	285.97	13,410	-.5
Sept. 30	1,180.24	7,770	-4.2	290.08	23,000	-1.7	285.85	13,300	-1.8
WTR YR 1984	-	-	+.5	-	-	-.1	-	-	+3.5

‡ Elevation at 0900 hours on first day of following month.
† Elevation or gage height at 2400 hours.
* Elevation at 0900 hours.

DIVERSIONS AND WITHDRAWALS

WITHDRAWALS FROM THE DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir, NY, on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 6, 1955. Records furnished by Board of Water Supply and Department of Water Resources, city of New York. REVISIONS (Water Years).--WRD-NY 1972: 1970.
REVISED RECORDS.--WRD NY-71: 1970. WRD NY-72: 1970. WDR NY-82: 1980.

01423900 Diversion from Cannonsville Reservoir, NY, on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 29, 1964. Records furnished by Board of Water Supply, city of New York.
REVISED RECORDS.--WDR NJ-82-2: 1980.

01435800 Diversion from Neversink Reservoir, NY, on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply and Department of Water Resources, city of New York.
REVISED RECORDS.--WDR NJ-82-2: 1976, 1977.

01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Records furnished by village of Woodridge.

01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School, Otisville, NY, for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records furnished by Delaware River Basin Commission.

01460500 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Kingston, (see station 01460500). Canal closed for dredging Mar. 16 through end of year.
REVISED RECORDS.--WDR NJ-82-2: 1981.

WITHDRAWALS BY CITY OF NEW YORK

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	PEPACTON RESERVOIR 01415200	CANNONSVILLE RESERVOIR 01423900	NEVERSINK RESERVOIR 01435800
October........................	701	290	171
November........................	688	224	161
December........................	697	212	157
CAL YR 1983..................	483	168	191
January........................	488	5.19	147
February........................	62.0	474	144
March........................	372	83.1	115
April........................	226	105	322
May........................	471	106	324
June........................	625	165	301
July........................	655	260	215
August........................	696	387	239
September........................	696	170	210
WTR YR 1984..................	534	206	209

DIVERSIONS AND WITHDRAWALS--Continued

MISCELLANEOUS WITHDRAWALS FROM BASIN

	EAST POND RESERVOIR a01436520	BEAR SWAMP RESERVOIR *01437360	BEAR CREEK 01447750	HAZLE CREEK ‡01448830	DELAWARE & RARITAN CANAL 01460500
October	DATA NOT AVAILABLE		0	DATA NOT AVAILABLE	61.5
November			0		99.8
December			0		97.9
CAL YR 1983			.1		70.3
January			0		82.5
February			0		81.6
March			0		41.2
April			0		0
May			0		0
June			0		0
July			0		0
August			0		0
September			0		0
WTR YR 1984			0		38.7

a Village of Woodridge has estimated that virtually all the withdrawal from East Pond Reservoir was returned to the Neversink River.

* Data not available this year but, from past records, monthly withdrawal is approximately 0.5 ft³/s.

‡ Data not available this year but, from past records, monthly withdrawal is approximately 4 ft³/s.

DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant for municipal supply, by the Borough of Morrisville, PA. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Borough of Morrisville, PA.

01463490 Diversion from the Delaware River just above the Trenton gaging station for municipal supply by the city of Trenton, NJ. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the City of Trenton.
REVISED RECORDS.--WDR NJ-82-2: Station number.

01467030 Diversion from the Delaware River at the Torresdale Intake for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and lossesmission. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	WITHDRAWAL BOROUGH OF MORRISVILLE 01463480	WITHDRAWAL CITY OF TRENTON 01463490	WITHDRAWAL CITY OF PHILADELPHIA		
			DELAWARE RIVER TORRESDALE 01467030	SCHUYLKILL RIVER 01474500	
				BELMONT	QUEEN LANE
October	5.92	48.8	295	97.9	157
November	5.90	48.7	291	131	95.0
December	5.91	49.0	290	161	95.3
CAL YR 1983	5.88	51.8	297	107	147
January	6.16	50.5	295	169	99.6
February	6.30	47.9	274	166	97.9
March	5.91	46.7	273	92.8	161
April	6.27	47.2	249	91.4	165
May	6.05	46.7	263	94.8	157
June	6.67	52.5	317	108	176
July	6.44	52.2	293	99.9	169
August	6.65	52.6	303	105	174
September	6.45	50.3	289	97.6	157
WTR YR 1984	6.28	49.4	286	118	142

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records furnished by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Octoraro Water Co., for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

01578450 Water divered from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	MORRIS LAKE 01367630	OCTORARO CREEK	
		OCTORARO WATER CO. 01578420	CHESTER WATER AUTHORITY 01578450
October	1.33	1.68	42.7
November	1.18	1.69	40.3
December	1.21	1.68	39.6
CAL YR 1983	1.4	1.7	40.8
January	1.50	1.77	43.0
February	1.44	2.02	39.9
March	1.67	1.77	40.8
April	1.70	1.79	38.9
May	1.39	1.79	39.3
June	1.39	1.97	42.4
July	1.27	1.81	42.1
August	1.32	2.07	43.4
September	1.27	2.02	41.8
WTR YR 1984	1.4	1.8	41.2

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1984

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Maurice River basin				
01411450	Still Run at Aura, NJ	Lat 39°40'23", long 75°07'50", Gloucester County, at bridge on Aura-Glassboro Road, 0.4 mi east of Aura, 1.0 mi upstream of Silver Lake, and 2.6 mi southeast of Glassboro.	3.21	1966, 1976-84	9-21-84	1.5
01411456	Little Ease Run near Clayton, NJ	Lat 39°39'32", long 75°04'04", Gloucester County, at bridge on Academy Road, 0.9 mi west of Fries Mill, 1.3 mi east of Clayton, and 1.4 mi downstream from Beaverdam Branch.	9.77	1966, 1976-84	9-21-84	3.0
01411462	Scotland Run at Franklinville, NJ	Lat 39°37'05", long 75°03'36", Gloucester County, at bridge on State Route 538, 0.9 mi east of Franklinville, 2.7 mi upstream of Malaga Lake, and 2.8 mi southeast of Clayton.	14.8	1976-84	9-21-84	13
01411700	Muddy Run at Centerton, NJ	Lat 39°31'28", long 75°10'09", Salem County, 180 ft downstream of unnamed right bank tributary, 200 ft downstream of bridge on State Routes 540 and 553 in Centerton, and 4.7 mi south of Elmer.	36.5	1976-84	9-21-84	17
01411950	Buckshutem Creek near Laurel Lake, NJ	Lat 39°20'51", long 75°03'47", Cumberland County, at bridge on State Route 555 (Dividing Creek Road), 1.3 mi upstream of Gravelly Run, 1.8 mi west of Laurel Lake, and 3.6 mi southwest of Millville.	12.9	1976-77, 1980-84	9-19-84	6.3
01412120	Muskee Creek near Port Elizabeth, NJ	Lat 39°18'56", long 74°57'31", Cumberland County, at bridge on State Route 548, 1.3 mi east of Port Elizabeth, 1.9 mi upstream from mouth, and 2.8 mi northeast of Mauricetown.	13.1	1969, 1976-84	9-19-84	10.0
		Cohansey River basin				
01412405	Cohansey River near Beals Mill, NJ	Lat 39°31'29", long 75°15'59", Cumberland County, at bridge on Beals Mill Road, 1,300 ft downstream of Beals Mill and Bostwick Lake, and 1.6 mi west of Deerfield Street.	9.44	1976-84	9-19-84	7.1
01413010	Barrett Run near Bridgeton, NJ	Lat 39°26'58", long 75°15'42", Cumberland County, at bridge on Mary Elmer Drive, 1,800 ft upstream from Mary Elmer Lake, and 2.1 mi northwest of the intersection of State Routes 49 and 77 in Bridgeton.	7.02	1966, 1976-84	9-19-84	3.1

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Cohansey River basin--Continued				
01413020	Indian Fields Branch at Bridgeton, NJ	Lat 39°26'04", long 75°13'08", Cumberland County, at bridge on Manheim Avenue in Bridgeton, 1,300 ft upstream of East Lake.	4.64	1976-84	9-19-84	7.2
		Stow Creek basin				
01413080	Raccoon Ditch at Davis Mill, NJ	Lat 39°25'26", long 75°22'01" Cumberland County, at bridge on County Highway 90 at Davis Mill, 2.8 mi upstream from mouth, and 4.3 mi southwest of Shiloh.	3.19	1976-78, 1980-84	9-19-84	3.4
		Delaware River basin				
*01443475	Trout Brook near Middleville, NJ	Lat 41°03'03", long 74°51'23", Sussex County, at bridge on County Highway 612, 0.4 mi upstream from mouth, 0.5 mi southeast of Middleville, and 5.1 mi west of Newton.	24.0	1979-84	9-12-84	6.8
01445800	Honey Run near Ramseyburg, NJ	Lat 40°53'44", long 75°01'04", Warren County, at bridge on Hope-Delaware Road, 2.3 mi northeast of Ramseyburg, 2.8 mi southwest of Hope, and 3.1 mi upstream from mouth.	2.21	1981-84	9-12-84	0.40
01455230	Merrill Creek at Coopersville, NJ	Lat 40°42'25", long 75°06'54", Warren County, at bridge on Lows Hollow Road at Coopersville, 0.9 mi north of Stewartsville, 2.1 mi upstream from mouth, and 3.3 mi east of Phillipsburg.	3.85	1981-84	9-12-84	2.7
01455780	Lubbers Run at Lockwood, NJ	Lat 40°55'36", long 74°43'09", Sussex County, at bridge on U.S. Route 206 at Lockwood, 1.0 mi upstream from mouth, and 1.5 mi northwest of Stanhope.	16.3	1982-84	9-11-84	5.8
01465884	Sharps Run at Route 541 at Medford, NJ	Lat 39°54'18", long 74°49'30", Burlington County, at bridge on Route 541 (Argonne Highway) in Medford, 0.7 mi upstream from mouth, 1.2 mi northeast of Oliphants Mills, and 2.6 mi northwest of Medford Lakes.	4.41	1982-84	9-18-84	.63
01465898	Little Creek near Lumberton, NJ	Lat 39°56'16", long 74°47'38", Burlington County, at bridge on Eayrestown Road, 0.6 mi upstream from mouth, 1.9 mi southeast of Lumberton, and 3.0 mi northeast of Medford.	19.2	1982-84	9-18-84	4.3
01467317	South Branch Newton Creek at 13th Avenue, at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on 13th Avenue in Haddon Heights, 2.4 mi southwest of Haddonfield, and 2.6 mi south of Collingswood.	0.63	1964-68, 1971,77, 1982-84	3-14-84	3.5
01483010	Deep Run near Alloway, NJ	Lat 39°32'34", long 75°21'18", Salem County, at bridge on Telegraph Road, 0.8 mi upstream from Elkinton Mill Pond, 1.3 mi south of Alloway and 2.5 mi northwest of Pecks Corner.	5.30	1979-84	9-19-84	4.4

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Cohansey River basin					
01412500	West Branch Cohansey River at Seeley, NJ	Lat 39°29'06, long 75°15'33", Cumberland County, on right bank 15 ft upstream from county bridge, Highway 31, at Seeley, 450 ft upstream from mouth and 4.1 mi northwest of Bridgeton. Datum of gage is 42.23 ft National Geodetic Vertical Datum of 1929.	2.58	1952-67‡, 1968-84	1-25-84	e<2.08	f
		Delaware River basin					
*01445000	Pequest River at Huntsville, NJ	Lat 40°58'52", long 74°46'36", Sussex County, on right bank, 20 ft upstream from highway bridge in Huntsville, and 0.4 mi downstream from East Branch. Datum of gage is 553.81 ft National Geodetic Vertical Datum of 1929.	31.0	1940-62‡, 1963-84	5-30-84	4.29	408
01445430	Pequest River at Townsbury, NJ	Lat 40°51'06", long 74°56'02", Warren County, upstream of highway bridge in Townsbury, 2.8 mi northeast of Pequest and 8.7 mi west of Hackettstown. Altitude of gage is 480 ft, from topographic map.	92.5	1977-80‡, 1981-84	4-06-84	4.51	1,850
*01446000	Beaver Brook near Belvidere, NJ	Lat 40°50'40", long 75°02'48, Warren County, on right bank, 2,000 ft upstream from mouth, and 2 mi east Belvidere. Datum of gage is 303.36 ft National Geodetic Vertical Datum of 1929.	36.7	1922-61‡, 1963-84	5-30-84	4.07	636
*0145520	Pohatcong Creek at New Village, NJ	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek. Datum of gage is 308.32 ft National Geodetic Vertical Datum of 1929.	33.3	1960-69‡, 1970-84	7-07-84	5.97	1,530
01455500	Musconetcong River at outlet of Lake Hopatcong, NJ	Lat 40°55'00", long 74°39'55", Morris County, on left bank just upstream of highway bridge 300 ft downstream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft National Geodetic Vertical Datum of 1929.	25.3	1929-75‡, 1976-84	4-07-84	4.52	425

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Delaware River basin--Continued					
01456000	Musconetcong River near Hackettstown, NJ	Lat 40°53'17", long 74°47'53" Warren County, on right bank 75 ft upstream from Saxton Falls Dam, 0.5 mi upstream from Erie-Lackawanna Railway bridge, and 3.0 mi northeast of Hackettstown. Datum of gage is 630.93 ft National Geodetic Vertical Datum of 1929.	68.9	1921-73‡, 1974-84	5-30-84	3.46	1,630
01457500	Delaware River at Riegelsville, NJ	Lat 40°35'36", long 75°11'17", Warren County, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft National Geodetic Vertical Datum of 1929.	6,328	1906-71‡, 1972-84	5-30-84	24.46	140,000
01463610	Assunpink Creek at Edinburg, NJ	Lat 40°15'28", long 74°37'05", Mercer County, on left bank, downstream side of bridge on Old Trenton Road (Route 535), 0.1 mi west of Edinburg, G.1 mi upstream from Bridegroom Run and 3.0 mi north of Robbinsville. Datum of gage is 63.46 ft National Geodetic Vertical Datum of 1929.	25.0	1979-84	7-07-84	e<6.35	f
01464400	Crosswicks Creek at New Egypt, NJ	Lat 40°04'03", long 74°31'57", Ocean County, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft downstream from Oakford Lake Dam. Datum of gage is 43.46 ft National Geodetic Vertical Datum of 1929.	41.2	1968-84	5-30-84	b23.3	1,360
01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam. Datum of gage is 50.98 National Geodetic Vertical Datum of 1929.	17.4	1968-84	5-30-84	b5.54	675
01464530	Blacks Creek at Mansfield Square, NJ	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi east of Mansfield Square, and 3.4 mi upstream from mouth. Datum of gage is 12.44 ft National Geodetic Vertical Datum of 1929.	19.7	1978-84	5-30-84	b8.87	1,000
01464538	Crafts Creek at Columbus, NJ	Lat 40°04'44", long 74°43'07", Burlington County, at bridge on Columbus-Mansfield road, 0.4 mi north of Columbus, and 6.0 mi northeast of Mount Holly. Datum of gage is 33.71 ft National Geodetic Vertical Datum of 1929.	5.38	1978-84	5-30-84	b7.12	228

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Delaware River basin--Continued					
01464582	Assiscunk Creek near Columbus, NJ	Lat 40°03'13", long 74°44'34", Burlington County, at bridge on Petticoat Bridge Road, 1.7 mi southwest of Columbus, 4.0 mi northeast of Mount Holly, and 0.1 mi downstream from Assiscunk Branch.	10.9	1978-84	5-30-84	b6.59	370
01465850	South Branch Rancocas Creek at Vincentown, NJ	Lat 39°56'22", long 74°45'50", Burlington County, on left bank 150 ft downstream from highway bridge on Lumberton-Vincentown road, 0.8 mi west of Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch. Datum of gage is 13.17 ft National Geodetic Vertical Datum of 1929.	64.5	1962-75‡, 1976-84	5-31-84	7.30	1,010
*01465880	Southwest Branch Rancocas Creek at Medford, NJ	Lat 39°53'43", long 74°49'26", Burlington County, at bridge on Argonne Highway (State Route 541), 0.6 mi south of intersection of Argonne Highway and State Highway 70 at Medford, and 5.3 mi upstream from mouth.	47.2	1983-84	5-31-84	10.64	600
01467057	Pompeston Creek at Cinnaminson, NJ	Lat 40°00'11", long 74°59'00", Burlington County, at U.S. Route 130 bridge, 0.7 mi northwest of Cinnaminson, 1.7 mi upstream from mouth, and 2.1 mi east of Palmyra. Datum of gage is 11.36 ft National Geodetic Vertical Datum of 1929.	5.77	1975-84	8-05-84	b4.92	685
01467069	North Branch Pennsauken Creek near Moorestown, NJ	Lat 39°57'07", revised, long 74°58'10", Burlington County, at bridge on Route 41 (Kings Highway), and 1.7 mi southwest of Moorestown. Datum of gage is 5.9 ft National Geodetic Vertical Datum of 1929.	12.8	1975-84	5-29-84	5.04	565
*01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi west of Marlton. Datum of gage is 36.36 ft National Geodetic Vertical Datum of 1929.	5.34	1964-84	4-05-84	b2.74	320
*01467305	Newton Creek at Collingswood, NJ	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue in Collingswood, 0.3 mi east of Cuthbert Avenue. Datum of gage is 18.74 ft National Geodetic Vertical Datum of 1929.	1.33	1964-84	5-30-84	3.18	148
01467317	South Branch Newton Creek at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on Haddon Heights Park in Haddon Heights, and 2.6 mi south of Collingswood. Datum of gage is 23.34 ft National Geodetic Vertical Datum of 1929.	0.63	1964-84	5-30-84	3.24	92

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Delaware River basin--Continued					
*01467330	South Branch Big Timber Creek at Blackwood, NJ	Lat 39°48'17", long 75°04'33", Camden County, at bridge on Lower Landing Road, in Blackwood, and 3.0 mi upstream from mouth. Datum of gage is 8.41 ft National Geodetic Vertical Datum of 1929.	20.9	1964-84	5-30-84	b4.48	440
01467351	North Branch Big Timber Creek at Laurel Road at Laurel Springs, NJ	Lat 39°49'07", long 75°00'56", Camden County, at bridge on Laurel Road in Laurel Springs, and 2.5 mi upstream from confluence with the South Branch. Datum of gage is 26.89 ft National Geodetic Vertical Datum of 1929.	7.17	1975-84	5-30-84	2.00	415
01475000	Mantua Creek at Pitman, NJ	Lat 39°44'14", long 75°06'53 Gloucester County, on left abutment of Wadsworth Dam, 0.9 mi east of Pitman, and 2.0 mi upstream from Porch Branch. Datum of gage is 68.51 ft National Geodetic Vertical Datum of 1929.	6.05	1940-76‡, 1977-84	4-05-84	2.13	240
01475019	Mantua Creek at Salina, NJ	Lat 39°46'13", long 75°07'59", Gloucester County, at bridge on Salina-Sewell Road, 0.2 mi downstream of Bees Branch, and 0.5 mi west of Salina. Datum of gage is 11.67 ft National Geodetic Vertical Datum of 1929.	14.1	1975-84	5-30-84	6.10	420
01477110	Raccoon Creek at Mullica Hill, NJ	Lat 39°44'10", long 75°13'30", Gloucester County, at bridge on State Routes 45 and 77 in Mullica Hill, 1,200 ft downstream of Mullica Hill Pond, and 5.5 mi west of Pitman. Datum of gage is 21.91 ft National Geodetic Vertical Datum of 1929.	15.6	1978-84	4-05-84	b3.14	655
01477480	Oldmans Creek near Harrisonville, NJ	Lat 39°41'20", revised, long 75°18'38", Salem County, at bridge on Harrisonville Station Road, 2.4 mi west of Harrisonville, and 2.8 mi north of Woodstown. Datum of gage is 16.58 ft National Geodetic Vertical Datum of 1929.	13.8	1975-84	7-07-84	5.46	450

* Also a low-flow partial-record station.
‡ Operated as a continuous-record gaging station.
< Gage height is less than following figure.
b Downstream side of bridge.
e Peak did not reach bottom of gage.
f Peak discharge for the period was less than the minimum recordable discharge.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1984

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin				
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, at bridge on State Route 519, in Belvidere, 1,400 ft upstream of mouth.	157	1950,53, 1955,74, 1977-82, 1984	11-01-83 12-08-83 3-23-84 6-05-84	*70.9 372 475 656

TIDAL CREST-STAGE STATIONS

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual maximum	
				Date	Elevation NGVD* (feet)
01411409	Delaware Bay at Reeds Beach, NJ	Lat 39°06'32", long 074°53'39", Cape May County, at boat ramp in Cooks Beach, 0.2 mi south of Reeds Beach, 4.8 mi northwest of Cape May Court House, and 5.8 mi north of Villas.	1979-84	3-29-84	6.57
01412150	Maurice River at Bivalve, NJ	Lat 39°13'42", long 75°02'12", Cumberland County, on right bank on bulkhead piling on the south side of Bivalve, and 1.3 mi south of Port Norris.	1965-84	3-29-84	7.00
01413038	Cohansey River at Greenwich, NJ	Lat 39°23"02", long 075°20'58" Cumberland County, at Greenwich Pier, 0.7 mi southwest of Greenwich, and 5.8 mi southwest of Shiloh.	1979-84	3-29-84	6.31
01464040	Delaware River at Marine Terminal, Trenton, NJ	Lat 40°11'21", long 74°45'22", Mercer County, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 mi downstream from toll bridge on U.S. Route 1, 2.0 mi downstream from Assunpink Creek, and at mile 131.80.	1921-46‡, 1951-54‡, 1957-84‡a	b	b
01477050	Delaware River at Chester, PA	Lat 39°49'52", long 75°19'58", Gloucester County, on left bank on floodgate at mouth of Repaupo Creek 2.2 mi northeast of Bridgeport, 5.5 mi north of Swedesboro, and at mile 84.00 mi, prior to October 1980 located at Reynolds Aluminum Company pier in Chester, PA at mile 82.30 mi.	1972-77‡, 1979-84	12-04-84	6.29
01483050	Alloway Creek at Hancocks Bridge, NJ	Lat 39°30'31" long 75°27'39", Salem County, on left bank at downstream side of Mill Street bridge in Hancocks Bridge, 0.4 mi downstream from Lower Alloway Creek, and 4.0 mi south of Salem.	1980-84	3-29-84	6.06

* National Geodetic Vertical Datum of 1929.
‡ Operated as a continuous-record gaging station.
a Operated by National Ocean Survey since March 1975.
b Not available

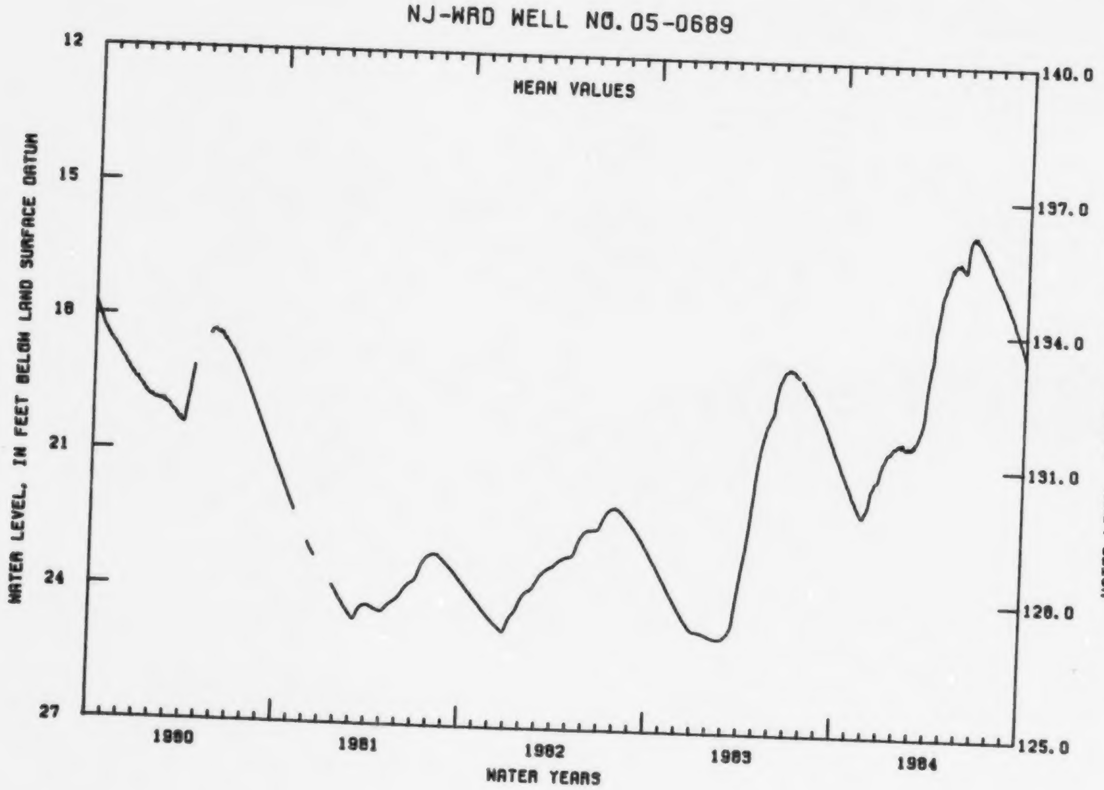
BURLINGTON COUNTY

395150074284201. Local I.D., Lebanon State Forest 23-D Obs. NJ-WRD Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 33 ft, open-end cement casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 152.02 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8 inch casing, 0.70 ft above land-surface datum.
REMARKS.--Water-quality records for 1984 are published elsewhere in this report.
PERIOD OF RECORD.--September 1955 to April 1975, January 1979 to current year. Records for 1955 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.37 ft below land-surface datum, Sept. 11, 1958; lowest, 25.80 ft below land-surface datum, Feb. 19-20, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.75 ft below land-surface datum, June 14 and 18; lowest, 22.11 ft below land-surface datum, Nov. 19-20.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.91	21.77	21.58	20.70	20.42	20.34	17.98	16.55	16.04	16.11	16.86	17.70
10	21.09	21.90	21.43	20.63	20.54	20.19	17.65	16.45	15.82	16.23	16.98	17.85
15	21.21	22.02	21.30	20.57	20.49	20.01	17.26	16.40	15.80	16.36	17.10	17.99
20	21.36	22.10	21.25	20.53	20.50	19.58	17.04	16.38	15.82	16.49	17.23	18.15
25	21.48	21.98	21.00	20.46	20.46	19.02	16.85	16.49	15.89	16.61	17.38	18.34
EOM	21.67	21.88	20.84	20.45	20.40	18.65	16.67	16.54	16.01	16.76	17.52	18.51
MEAN	21.24	21.94	21.29	20.58	20.50	19.72	17.38	16.47	15.93	16.39	17.14	18.03

WTR YR 1984 MEAN 18.88 HIGH 15.76 JUN 14 AND OTHERS LOW 22.10 NOV 19 AND OTHERS



BURLINGTON COUNTY

395525074502601. Local I.D., Medford 4 Obs. NJ-WRD Well Number, 05-0262.

LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.

Owner: U.S. Geological Survey.

AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,145 ft, screened 1,125 to 1,145 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1968 to July 1975.

DATUM.--Land-surface datum is 72.32 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.56 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to July 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft below land-surface datum, Mar. 13, 1968; lowest, 130.38 ft below land-surface datum, between July 12 and Sept. 30, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 121.02 ft below land-surface datum, between Apr. 2 and July 23; lowest, 129.70 ft below land-surface datum, between September 30, 1983 and January 9, 1984.

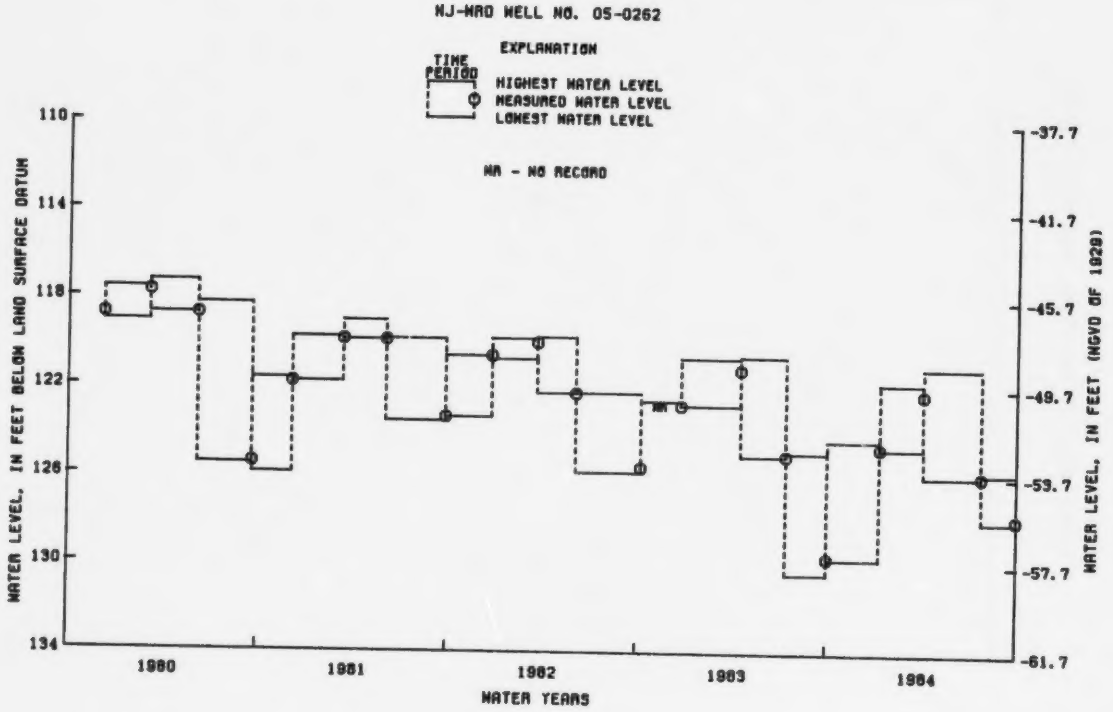
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 9, 1984	124.33	129.70
JAN. 9, 1984 TO APR. 2, 1984	121.74	124.69
APR. 2, 1984 TO JULY 23, 1984	121.02	125.94
JULY 23, 1984 TO SEPT. 28, 1984	125.79	127.96

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	124.65
APR. 2, 1984	122.21
JULY 23, 1984	125.90
SEPT. 28, 1984	127.84



BURLINGTON COUNTY

395525074502505. Local I.D., Medford 5 Obs. NJ-WRD Well Number, 05-0261.

LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.

Owner: U.S. Geological Survey.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 750 ft, screened 740 to 750 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 72.60 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to March 1975, March 1977 to current year. Records for 1968 to 1977 are unpublished and are available in files of New Jersey District Office.

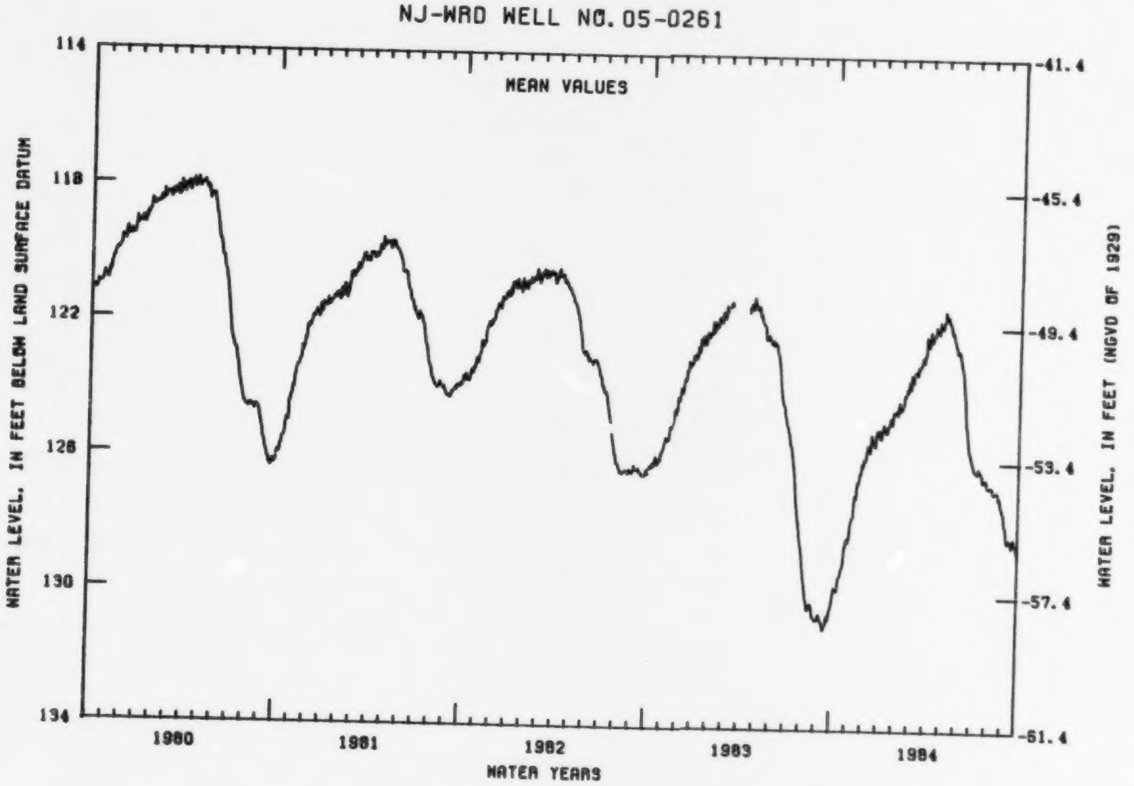
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft below land-surface datum, Mar. 1, 1968; lowest, 131.05 ft below land-surface datum, Sept. 16, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 121.46 ft below land-surface datum, May 4; lowest, 130.23 ft below land-surface datum, Oct. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.73	127.73	125.72	124.97	124.21	123.46	122.10	121.66	123.03	126.24	126.69	128.10
10	129.85	127.30	125.69	124.99	124.42	123.36	122.31	121.75	123.46	126.25	126.89	128.26
15	129.43	126.94	125.27	124.95	123.99	123.21	122.11	121.98	124.47	126.28	126.88	128.28
20	129.14	126.48	125.51	124.80	123.80	123.03	122.12	122.14	125.29	126.57	126.96	128.22
25	128.52	126.05	125.16	124.49	123.58	122.91	121.87	122.52	125.73	126.53	127.24	128.40
EOM	128.32	125.98	125.31	124.43	123.40	122.55	121.83	122.65	126.03	126.72	127.56	128.56
MEAN	129.25	126.92	125.45	124.85	124.07	123.11	122.15	122.09	124.45	126.38	126.98	128.31

WTR YR 1984 MEAN 125.34 HIGH 121.49 MAY 4 LOW 130.18 OCT 1



BURLINGTON COUNTY

395524074502501. Local I.D., Medford 1 Obs. NJ-WRD Well Number, 05-0258.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 410 ft, screened 400 to 410 ft.
INSTRUMENTATION.--Water-level extremes recordor, February 1977 to current year. Water-level recorder, October 1963 to August 1975.
DATUM.--Land-surface datum is 70.77 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land-surface datum.
PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.22 ft below land-surface datum, Feb. 16-19, 1964; lowest, 138.42 ft below land-surface datum, between July 12 and Sept. 30, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 124.82 ft below land-surface datum, between Apr. 2 and July 23; lowest, 135.69 ft below land-surface datum, between September 30, 1983 and January 9, 1984.

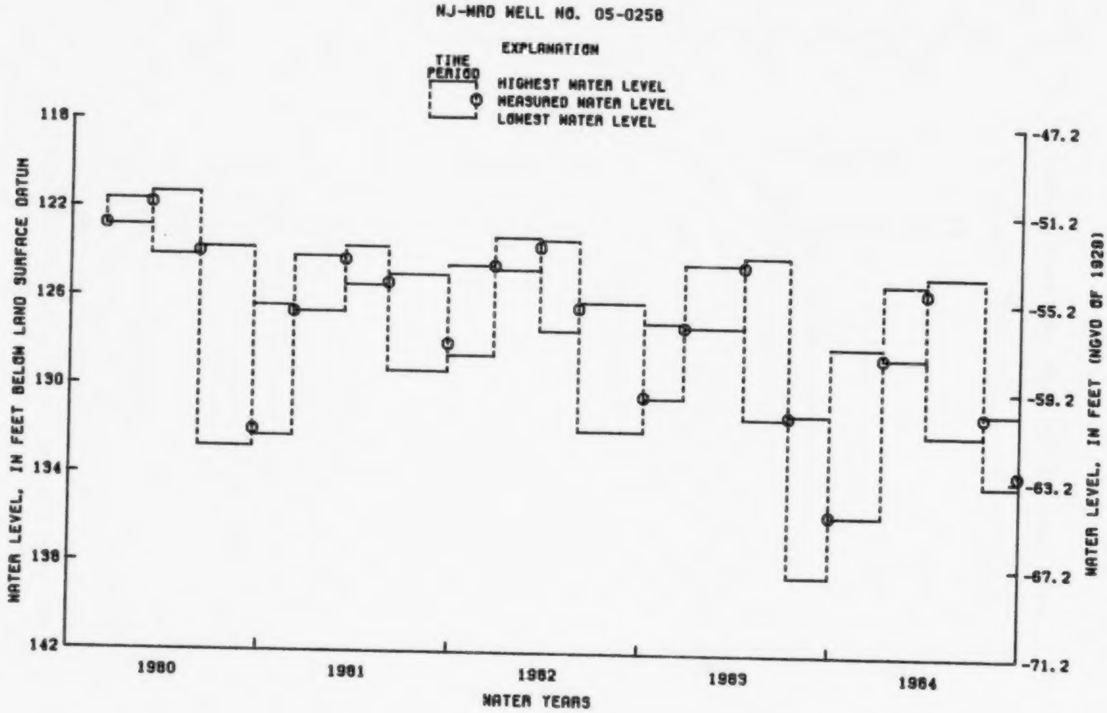
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 9, 1984	128.06	135.69
JAN. 9, 1984 TO APR. 2, 1984	125.19	128.52
APR. 2, 1984 TO JULY 23, 1984	124.82	131.99
JULY 23, 1984 TO SEPT. 28, 1984	130.99	134.26

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	128.52
APR. 2, 1984	125.57
JULY 23, 1984	131.12
SEPT. 28, 1984	133.74



BURLINGTON COUNTY

395524074502502. Local I.D., Medford 2 Obs. NJ-WRD Well Number, 05-0259.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 263 ft, screened 253 to 263 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, October 1963 to August 1975.
DATUM.--Land-surface datum is 72.92 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.42 ft below land-surface datum, Apr. 27, 1973; lowest, 111.96 ft below land-surface datum, July 9, 1964.
EXTREMES FOR CURRENT YEAR.--Highest water level, 46.11 ft below land-surface datum, between Apr. 2 and July 23; lowest, 61.68 ft below land-surface datum, between Apr. 2 and July 23.

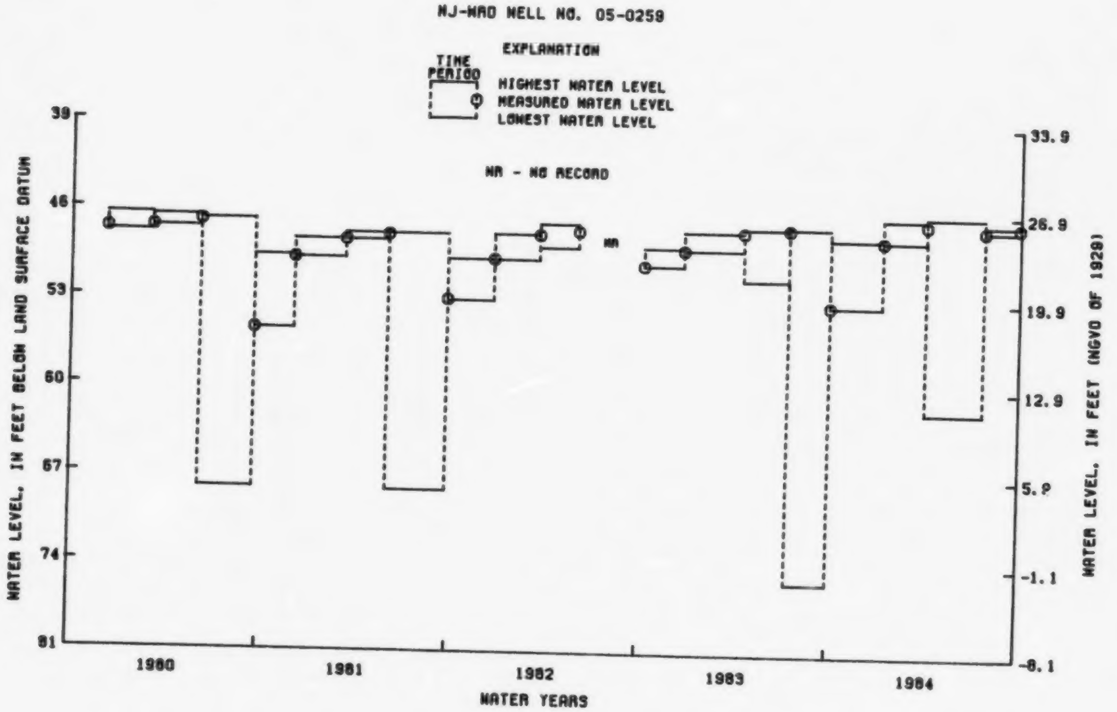
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 9, 1984	47.98	53.34
JAN. 9, 1984 TO APR. 2, 1984	46.32	48.09
APR. 2, 1984 TO JULY 23, 1984	46.11	61.68
JULY 23, 1984 TO SEPT. 28, 1984	46.68	47.15

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	48.09
APR. 2, 1984	46.72
JULY 23, 1984	47.13
SEPT. 28, 1984	46.81



BURLINGTON COUNTY

400010074521601. Local I.D., Willingboro 2 Obs. NJ-WRD Well Number, 05-0645.

LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, near intersection of Bridge Street and Tiffany Lane, Willingboro.

Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 441 ft, screened 431 to 441 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 40.30 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 2.00 ft below land-surface datum.

REMARKS.--Water level affected by tidal fluctuation and nearby pumping.

PERIOD OF RECORD.--March 1966 to September 1975, March 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.

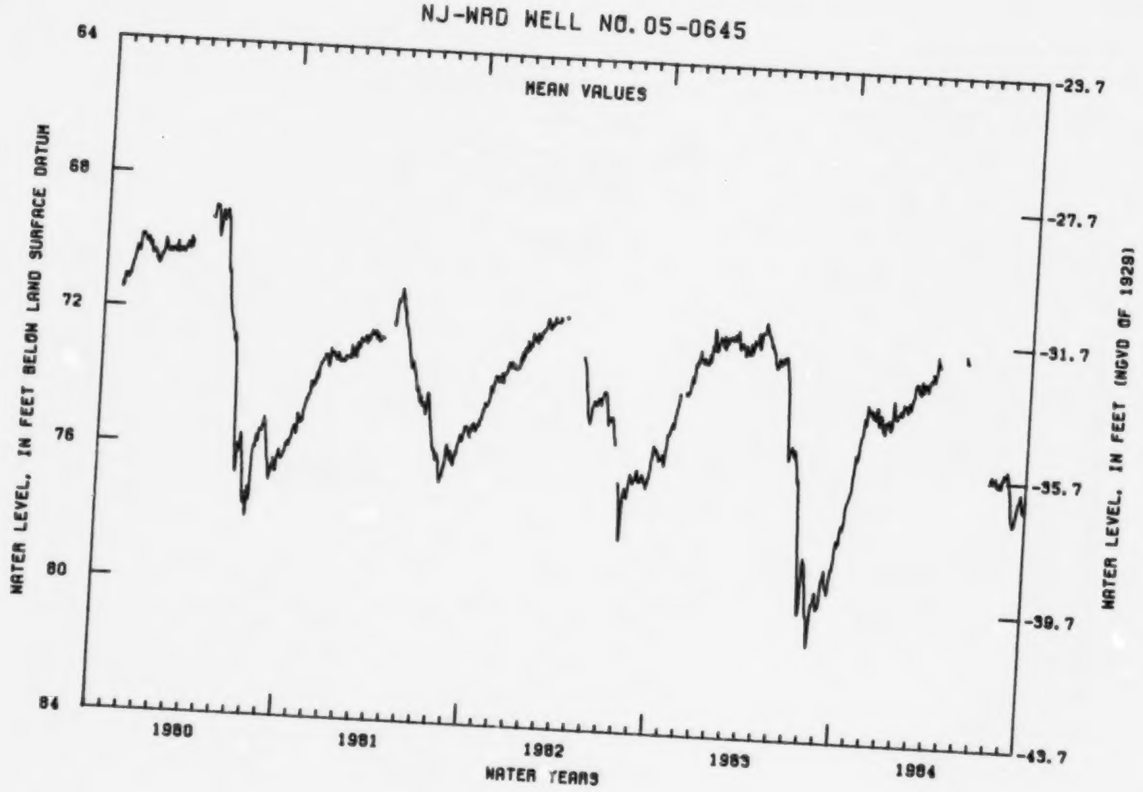
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft below land-surface datum, June 21, 1967; lowest, 81.29 ft below land-surface datum, Aug. 10, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 72.07 ft below land-surface datum, Mar. 29; lowest, 78.13 ft below land-surface datum, Oct. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.49	74.95	74.00	73.95	73.73	73.21		---		---	76.12	77.29
10	77.38	74.51	74.45	74.11	73.71	73.19		---		---	76.15	77.00
15	76.76	74.24	74.31	74.16	73.21	73.12		---		---	75.81	76.55
20	76.47	74.07	74.69	74.08	73.17	73.04		---		75.98	75.78	76.33
25	75.94	74.04	74.43	73.79	73.21	72.95		72.48		75.92	75.88	76.85
EOM	75.48	74.18	74.57	73.84	73.17	72.49		---		75.85	76.59	76.45
MEAN	76.71	74.42	74.36	74.07	73.50	73.05		---		---	75.98	76.80

WTR YR 1984 MEAN 74.85 HIGH 72.28 MAY 24 LOW 77.99 OCT 1



BURLINGTON COUNTY

400213074510801. Local I.D., Willingboro 1 Obs. NJ-WRD Well Number, 05-0063.

LOCATION.--Lat 40°02'13", long 74°51'08", Hydrologic Unit 02040202, on the west side of Rancocas Road about 2 mi north of Rancocas.

Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 294 ft, screened 284 to 294 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, March 1966 to September 1975.

DATUM.--Land-surface datum is 45.45 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 0.76 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--March 1966 to September 1975, February 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.25 ft below land-surface datum, Mar. 19, 1966; lowest, 68.47 ft below land-surface datum, between July 12 and Sept. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 58.87 ft below land-surface datum, between Apr. 2 and July 19; lowest, 64.29 ft below land-surface datum, between July 19 and Sept. 28.

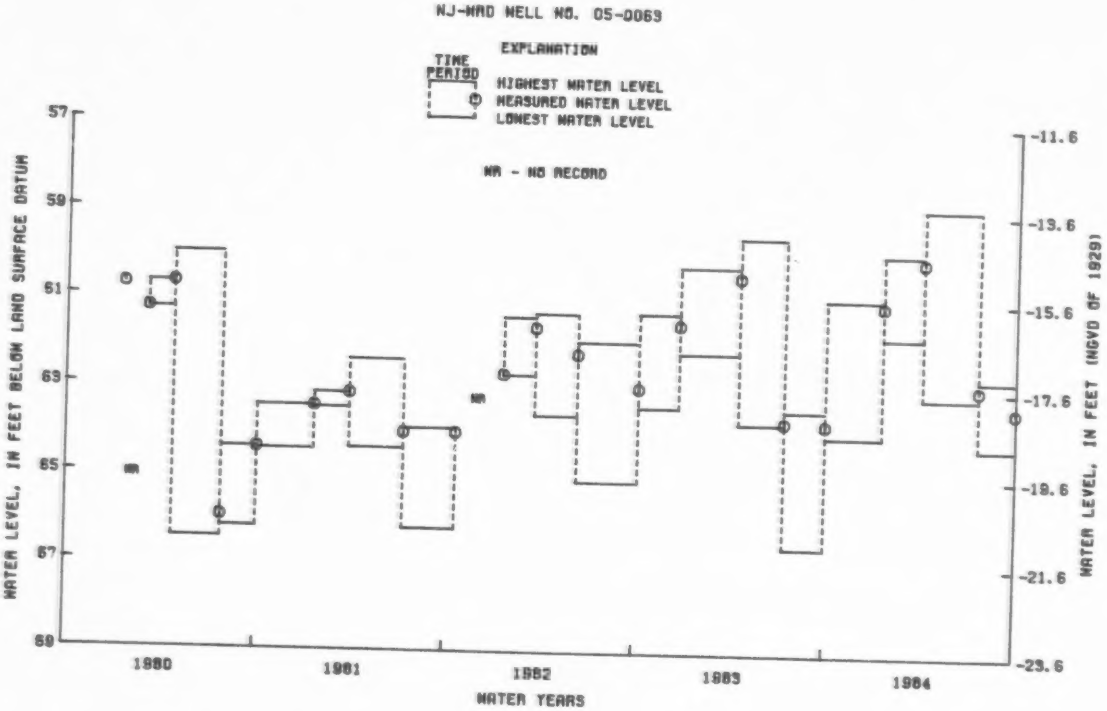
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 16, 1984	60.95	64.06
JAN. 16, 1984 TO APR. 2, 1984	59.92	61.81
APR. 2, 1984 TO JULY 19, 1984	58.87	63.16
JULY 19, 1984 TO SEPT. 28, 1984	62.74	64.29

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 16, 1984	61.08
APR. 2, 1984	60.07
JULY 19, 1984	62.94
SEPT. 28, 1984	63.43



BURLINGTON COUNTY

400242074422301. Local I.D., Rhodia Corp. 1 Obs. NJ-WRD Well Number, 05-0440.
LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, on the lands of Rhodia Corporation near Jobstown.
Owner: Rhodia Corporation.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 615 ft, screened 603 to 613 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1968 to March 1975.
DATUM.--Land-surface datum is 71.65 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.22 ft above land-surface datum.
PERIOD OF RECORD.--December 1968 to March 1975, April 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 86.55 ft below land-surface datum, Dec. 31, 1969; lowest, 104.13 ft below land-surface datum, between Apr. 28 and Aug. 8, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 98.18 ft below land-surface datum, between Apr. 2 and July 20; lowest, 103.39 ft below land-surface datum, between September 30, 1983 and January 6, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

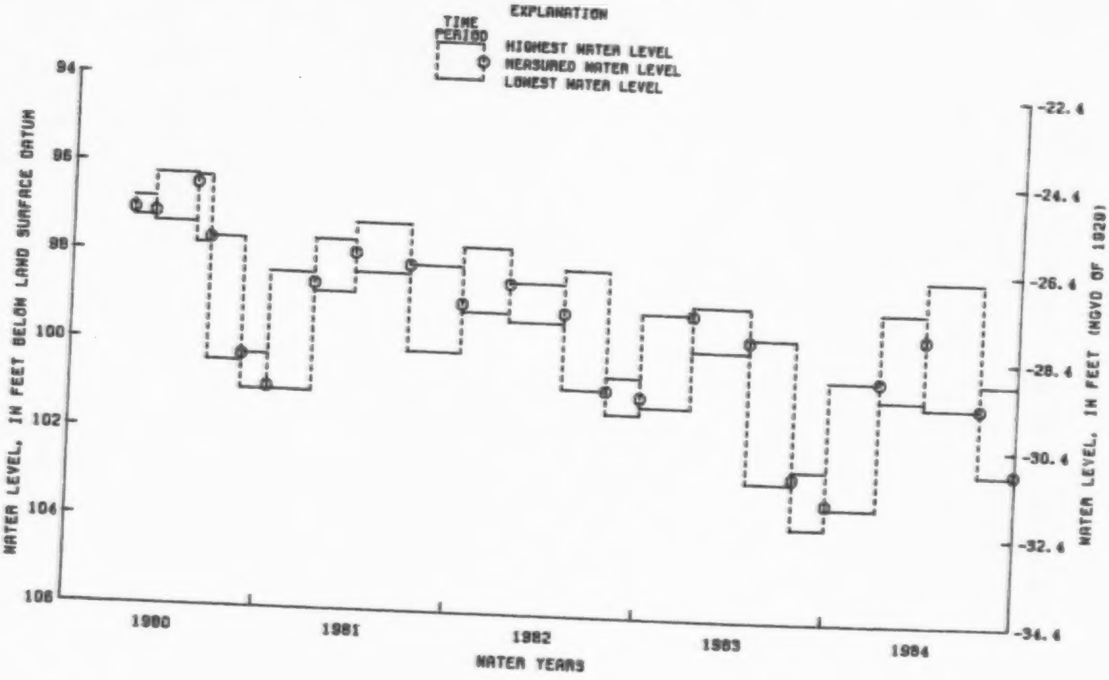
WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 6, 1984	100.50	103.39
JAN. 6, 1984 TO APR. 2, 1984	98.93	100.92
APR. 2, 1984 TO JULY 20, 1984	98.18	101.06
JULY 20, 1984 TO SEPT. 28, 1984	100.50	102.56

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 6, 1984	100.50
APR. 2, 1984	99.51
JULY 20, 1984	101.05
SEPT. 28, 1984	102.52

NJ-WRD WELL NO. 05-0440



CAMDEN COUNTY

394922074563301. Local I.D., Elm Tree Farm 2 Obs. NJ-WRD Well Number, 07-0412.

LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Road and about 2 mi northwest of Berlin.
Owner: New Jersey Water Company.

AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,092 ft, screened 1,082 to 1,092 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1963 to June 1975.

DATUM.--Land-surface datum is 148.68 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.76 ft above land-surface datum.

REMARKS.--Well was originally screened 1,217 to 1,227 ft; rehabilitated August 1969.

PERIOD OF RECORD.--January 1963 to June 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 166.06 ft below land-surface datum, July 21, 1965; lowest, 228.51 ft below land-surface datum, between July 11 and Sept. 30, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 215.61 ft below land-surface datum, between Apr. 12 and July 23; lowest, 226.81 ft below land-surface datum, between September 30, 1983 and January 9, 1984.

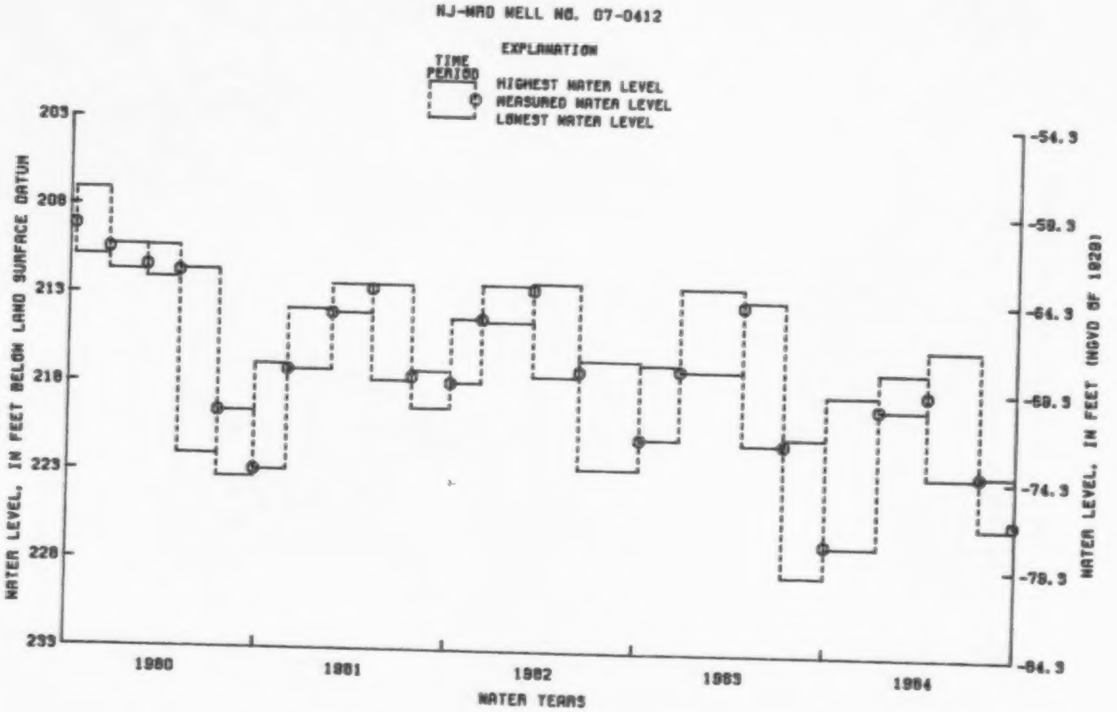
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 9, 1984	218.26	226.81
JAN. 9, 1984 TO APR. 12, 1984	216.93	219.03
APR. 12, 1984 TO JULY 23, 1984	215.61	222.80
JULY 23, 1984 TO SEPT. 27, 1984	222.66	225.64

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	219.00
APR. 12, 1984	218.16
JULY 23, 1984	222.70
SEPT. 27, 1984	225.37



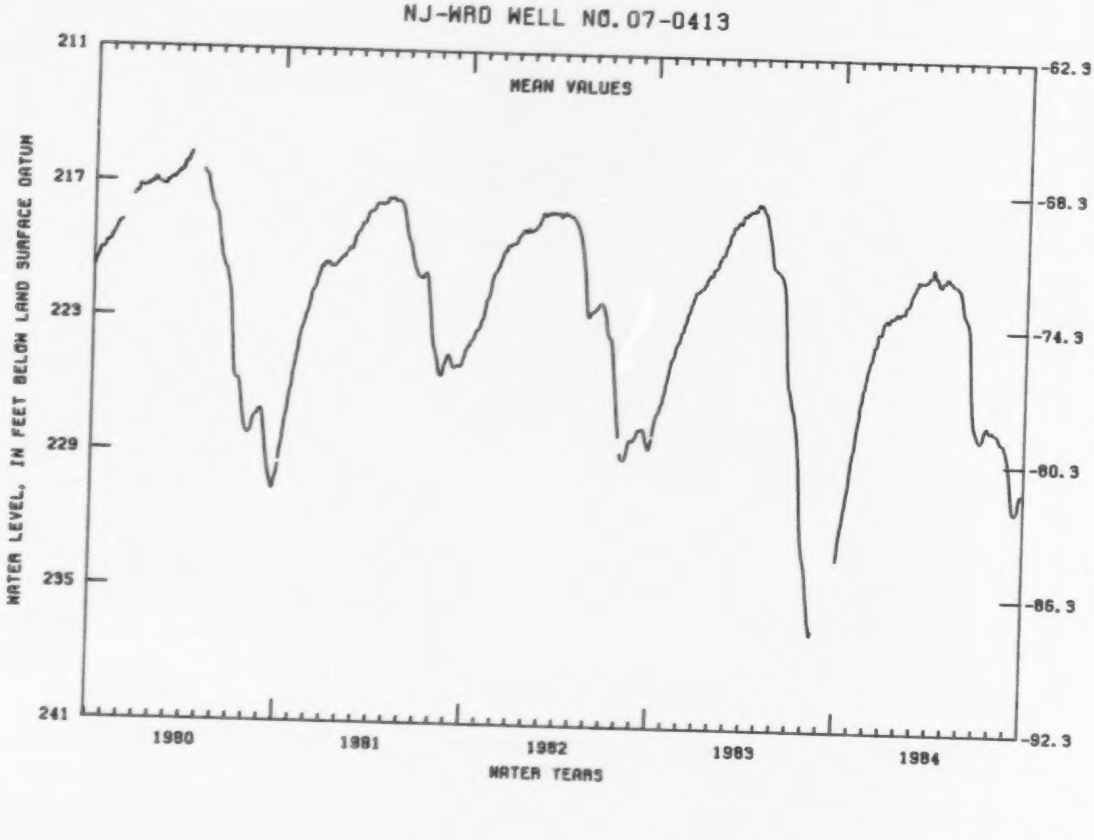
CAMDEN COUNTY

394922074563302. Local I.D., Elm Tree Farm 3 Obs. NJ-WRD Well Number, 07-0413.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Road and about 2 mi northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 717 ft, screened 706 to 717 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 148.73 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 0.60 ft above land-surface datum.
PERIOD OF RECORD.--December 1963 to April 1975, March 1977 to current year. Records for 1963 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft below land-surface datum, Feb. 6, 1964; lowest, 236.70 ft below land-surface datum, Aug. 15, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 220.19 ft below land-surface datum, Mar. 29-30; lowest, 233.40 ft below land-surface datum, Oct. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	232.41	227.52	224.05	222.55	221.99	220.88	220.63	220.80	222.52	227.94	227.57	230.34
10	231.74	226.84	223.72	222.45	221.91	220.83	220.89	220.93	222.97	227.69	227.77	231.07
15	230.97	226.12	223.17	222.40	221.51	220.79	220.99	220.99	225.03	227.33	227.97	231.03
20	230.21	225.57	223.16	222.23	221.25	220.71	220.80	221.11	227.01	227.37	228.02	230.54
25	229.25	224.87	222.66	222.28	220.98	220.62	220.60	221.52	227.51	227.46	228.40	230.23
EOM	228.43	224.43	222.61	222.22	220.77	220.28	220.72	222.28	227.81	227.52	229.23	230.39
MEAN	230.77	226.13	223.33	222.39	221.55	220.69	220.74	221.20	225.11	227.55	228.06	230.56

WTR YR 1984 MEAN 224.85 HIGH 220.21 MAR 30 LOW 233.32 OCT 1



CAMDEN COUNTY

395229074571201. Local I.D., Hutton Hill 1 Obs. NJ-WRD Well Number, 07-0117.
LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft northeast of intersection of Kresson and Cropwell Roads, Cherry Hill Township.
Owner: New Jersey Water Company.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 562 ft, screened 552 to 562 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, August 1967 to April 1975.
DATUM.--Land-surface datum is 157.61 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.89 ft above land-surface datum.
PERIOD OF RECORD.--August 1967 to April 1975, February 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 200.77 ft below land-surface datum, Mar. 23, 1968; lowest, 251.56 ft below land-surface datum, between July 23 and Sept. 27, 1984.
EXTREMES FOR CURRENT YEAR.--Highest water level, 231.95 ft below land-surface datum, between Jan. 9 and Apr. 12; lowest, 251.56 ft below land-surface datum, between July 23 and Sept. 27.

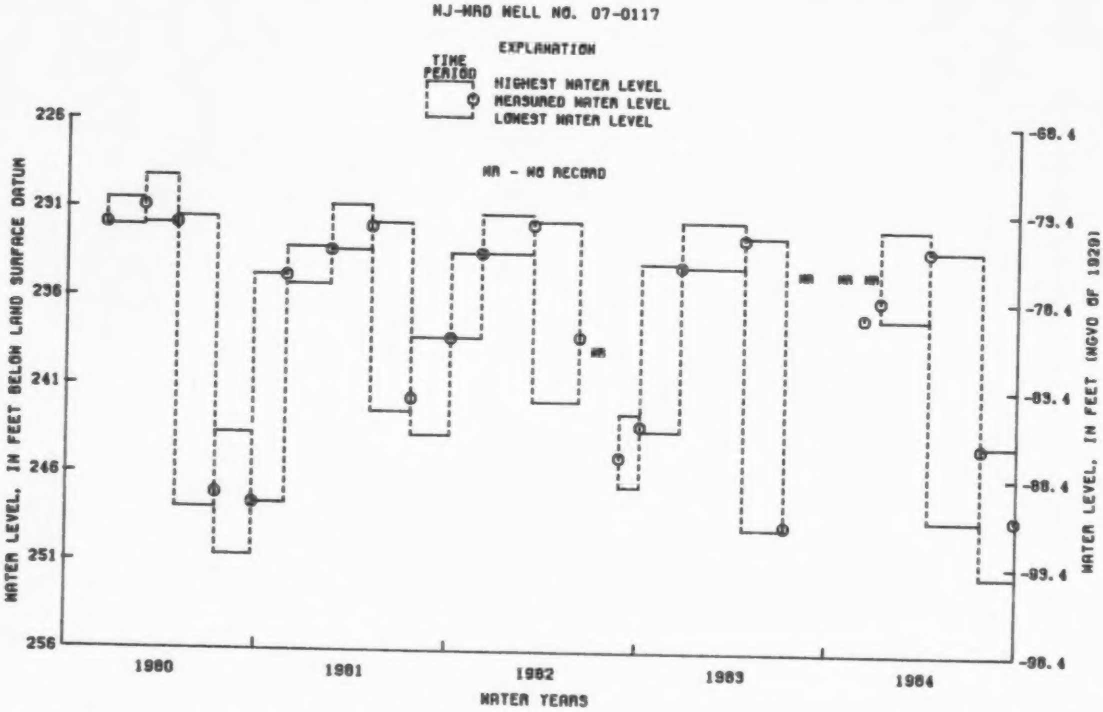
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO DEC. 9, 1983	---	---
DEC. 9, 1983 TO JAN. 9, 1984	---	---
JAN. 9, 1984 TO APR. 12, 1984	231.95	237.05
APR. 12, 1984 TO JULY 23, 1984	233.15	248.43
JULY 23, 1984 TO SEPT. 27, 1984	244.16	251.56

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 9, 1983	236.97
JAN. 9, 1984	235.98
APR. 12, 1984	233.15
JULY 23, 1984	244.27
SEPT. 27, 1984	248.32



CAMDEN COUNTY

395246075043301. Local I.D., Egbert Station Obs. NJ-WRD Well Number, 07-0283.
LOCATION.--Lat 39°52'46", long 75°04'34", Hydrologic Unit 02040202, in Camden County Park, about 400 ft south of the corner of Dallas and Sylvan Avenues, Haddon Heights.
Owner: New Jersey Water Company.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 455 ft, screened 445 to 455 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, July 1963 to August 1975.
DATUM.--Land-surface datum is 23.66 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.16 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--July 1963 to August 1975, February 1977 to current year. Periodic manual measurements, September 1975 to January 1977. Records for 1963 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.93 ft below land-surface datum, Apr. 8, 1964; lowest, 130.41 ft below land-surface datum, between July 12 and Sept. 29, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 82.13 ft below land-surface datum, between Apr. 11 and Aug. 1; lowest, 121.65 ft below land-surface datum, between Apr. 11 and Aug. 1.

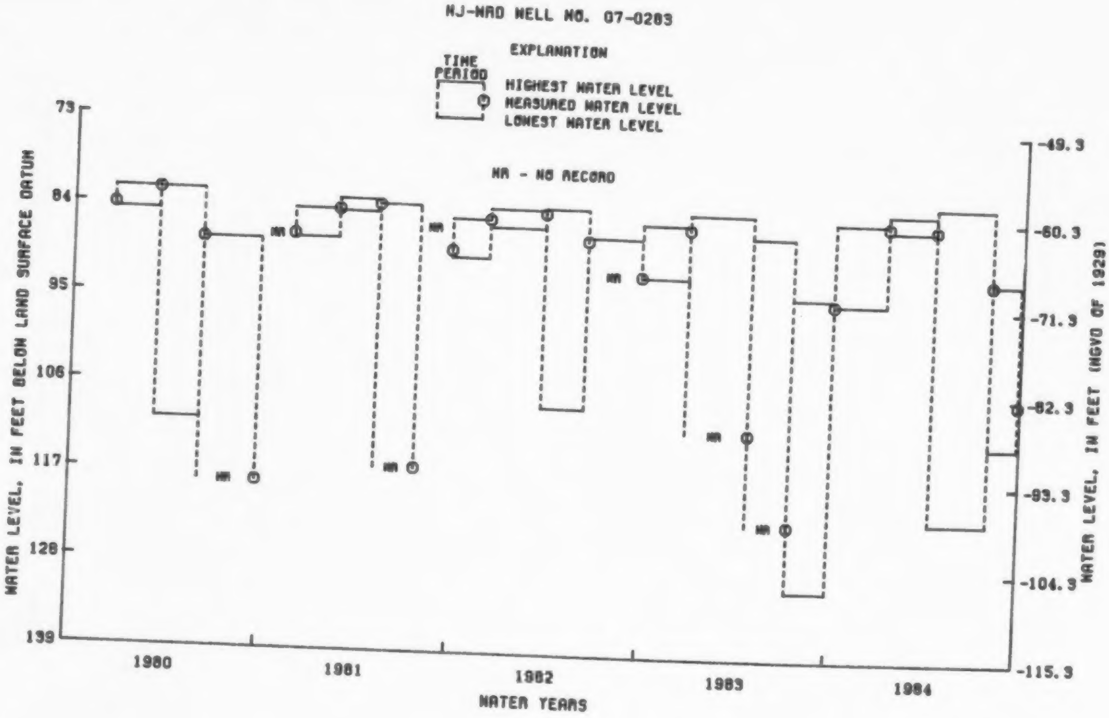
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 9, 1984	84.32	94.50
JAN. 9, 1984 TO APR. 11, 1984	83.12	85.16
APR. 11, 1984 TO AUG. 1, 1984	82.13	121.65
AUG. 1, 1984 TO SEPT. 26, 1984	91.56	112.10

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	84.64
APR. 11, 1984	84.91
AUG. 1, 1984	91.57
SEPT. 26, 1984	106.53



CAPE MAY COUNTY

385616074580001. Local I.D., Traffic Circle Obs. NJ-WRD Well Number, 09-0020.
LOCATION.--Lat 38°56'16", long 74°58'00", Hydrologic Unit 02040206, about 2,000 ft south of Sunset Boulevard at the traffic circle in Cape May Point.
Owner: U.S. Geological Survey.
AQUIFER.--Cape May Formation of Pleistocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 20 ft, screened 15 to 20 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, January 1967 to April 1977.
DATUM.--Land-surface datum is 9.12 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.17 ft above land-surface datum.
REMARKS.--Water level affected by stage of Lake Lilly.
PERIOD OF RECORD.--January 1967 to September 1984 (discontinued). Periodic manual measurements, January 1963 to December 1966. Records for 1963 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land-surface datum, between Nov. 11, 1977 and Feb. 21, 1978; lowest, 6.12 ft below land-surface datum, Nov. 5-6, 1968.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.56 ft below land-surface datum, between Apr. 10 and July 31; lowest, 5.52 ft below land-surface datum, between July 31 and Sept. 27.

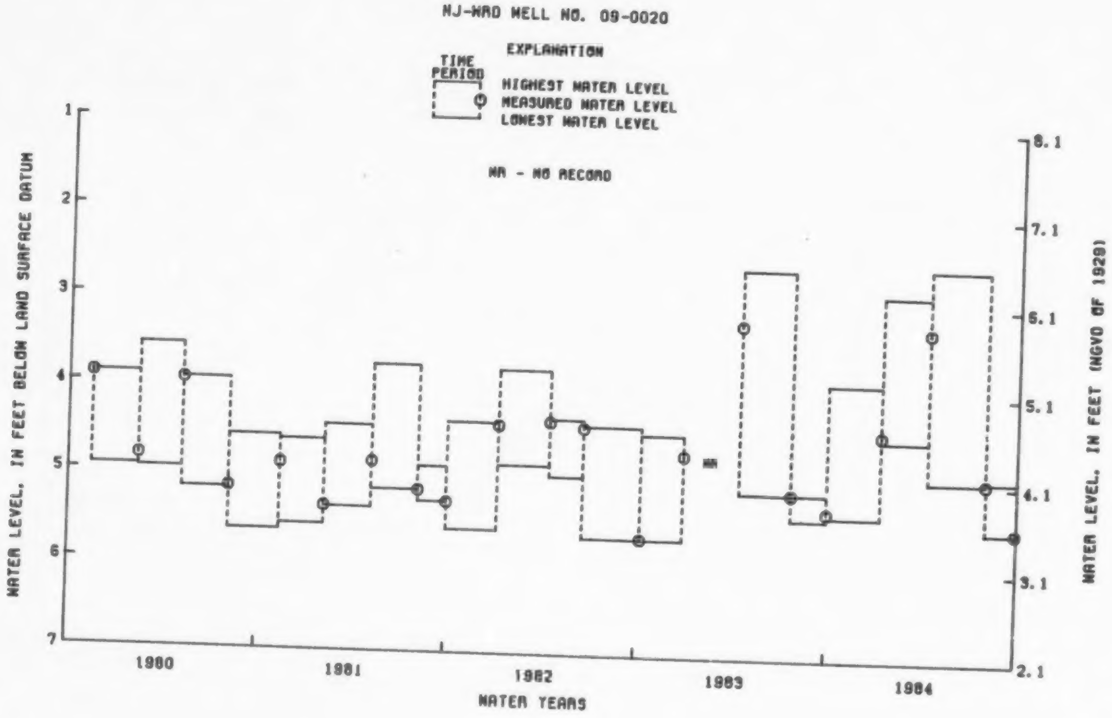
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 10, 1984	3.88	5.38
JAN. 10, 1984 TO APR. 10, 1984	2.87	4.51
APR. 10, 1984 TO JULY 31, 1984	2.56	4.96
JULY 31, 1984 TO SEPT. 27, 1984	4.94	5.52

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 10, 1984	4.45
APR. 10, 1984	3.27
JULY 31, 1984	4.96
SEPT. 27, 1984	5.51

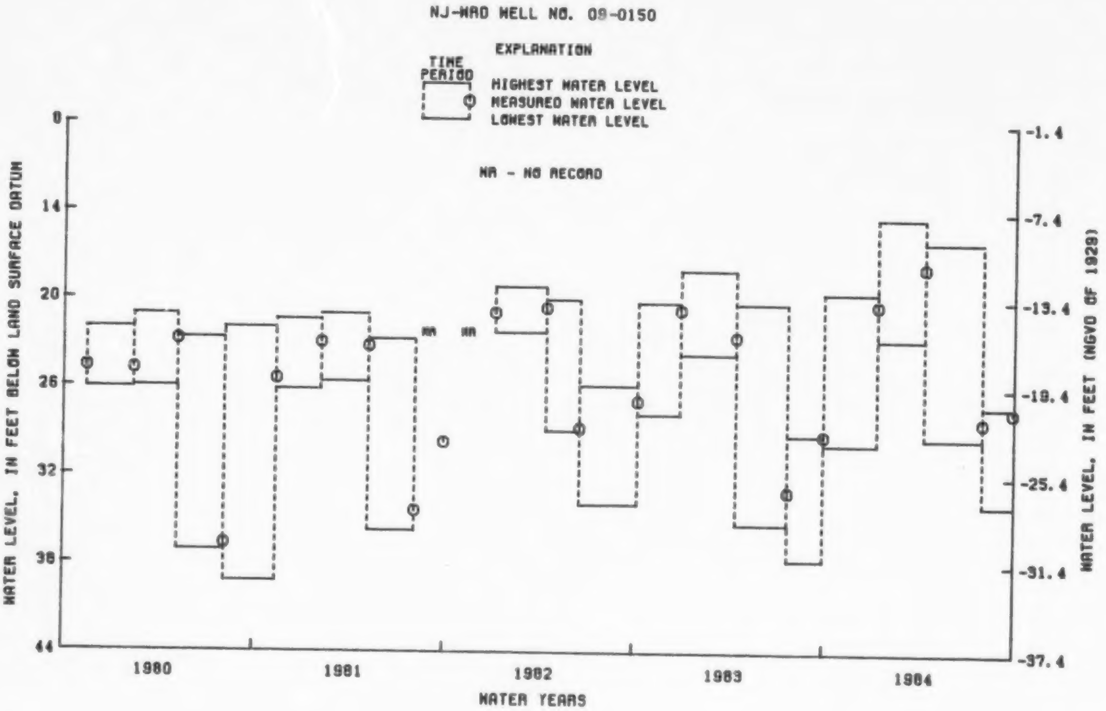


CAPE MAY COUNTY

385607074555201. Local I.D., West Cape May 1 Obs. NJ-WRD Well Number, 09-0150.
LOCATION.--Lat 38°56'07", long 74°55'56", Hydrologic Unit 02040206, on the north side of Sunset Boulevard, West Cape May.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 293 ft, screened 283 to 293 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, July 1957 to December 1972.
DATUM.--Land-surface datum is 6.60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.88 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--July 1957 to December 1972, May 1977 to current year. Periodic manual measurements, February 1973 to September 1976. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.38 ft below land-surface datum, between Jan. 10 and Apr. 10, 1984; lowest, 41.30 ft below land-surface datum, Sept. 3, 1963.
EXTREMES FOR CURRENT YEAR.--Highest water level, 14.38 ft below land-surface datum, between Jan. 10 and Apr. 10; lowest, 33.94 ft below land-surface datum, between July 31 and Sept. 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO JAN. 10, 1984	19.49	29.82	JAN. 10, 1984	20.30
JAN. 10, 1984 TO APR. 10, 1984	14.38	22.67	APR. 10, 1984	17.70
APR. 10, 1984 TO JULY 31, 1984	15.99	29.41	JULY 31, 1984	28.24
JULY 31, 1984 TO SEPT. 27, 1984	27.22	33.94	SEPT. 27, 1984	27.55



CAPE MAY COUNTY

385804074574201. Local I.D., Higbee Beach 3 Obs. NJ-WRD Well Number, 09-0049.

LOCATION.--Lat 38°58'04", long 74°57'42", Hydrologic Unit 02040206, on the north bank of the west end of the Cape May Canal, Lower Township.

OWNER: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 250 ft, screened 241 to 250 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, June 1965 to September 1975.

DATUM.--Land-surface datum is 6.00 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Front edge of cutout in recorder housing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

PERIOD OF RECORD.--June 1965 to September 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.65 ft below land-surface datum, between Apr. 10 and July 31, 1984; lowest, 34.22 ft below land-surface datum, July 31, 1974.

EXTREMES FOR CURRENT YEAR.--Highest water level, 12.65 ft below land-surface datum, between Apr. 10 and July 31; lowest, 26.67 ft below land-surface datum, between July 31 and Sept. 27.

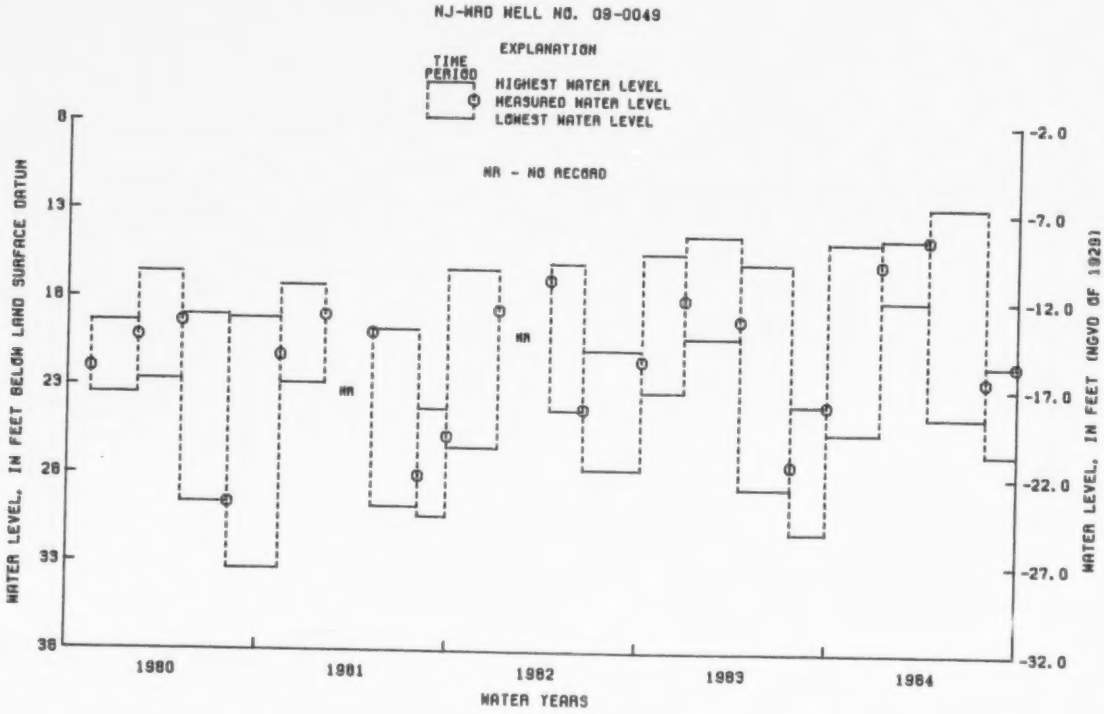
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 10, 1984	14.69	25.53
JAN. 10, 1984 TO APR. 10, 1984	14.47	18.01
APR. 10, 1984 TO JULY 31, 1984	12.65	24.60
JULY 31, 1984 TO SEPT. 27, 1984	21.63	26.67

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 10, 1984	15.94
APR. 10, 1984	14.50
JULY 31, 1984	22.52
SEPT. 27, 1984	21.63



CAPE MAY COUNTY

390425074544601. Local I.D., Oyster Lab 4 Obs. NJ-WRD Well Number, 09-0089.
LOCATION.--Lat 39°04'25", long 74°54'46", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 210 ft, screened 195 to 210 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, August 1957 to August 1975.
DATUM.--Land-surface datum is 7.37 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.95 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--August 1957 to August 1975, May 1977 to current year. Periodic manual measurements, September 1975 to April 1977. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.07 ft below land-surface datum, Apr. 3, 1958; lowest, 14.10 ft below land-surface datum, between Aug. 28, 1980 and Feb. 6, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.29 ft below land-surface datum, between Jan. 10 and Apr. 10; lowest, 14.09 ft below land-surface datum, between July 31 and Sept. 27.

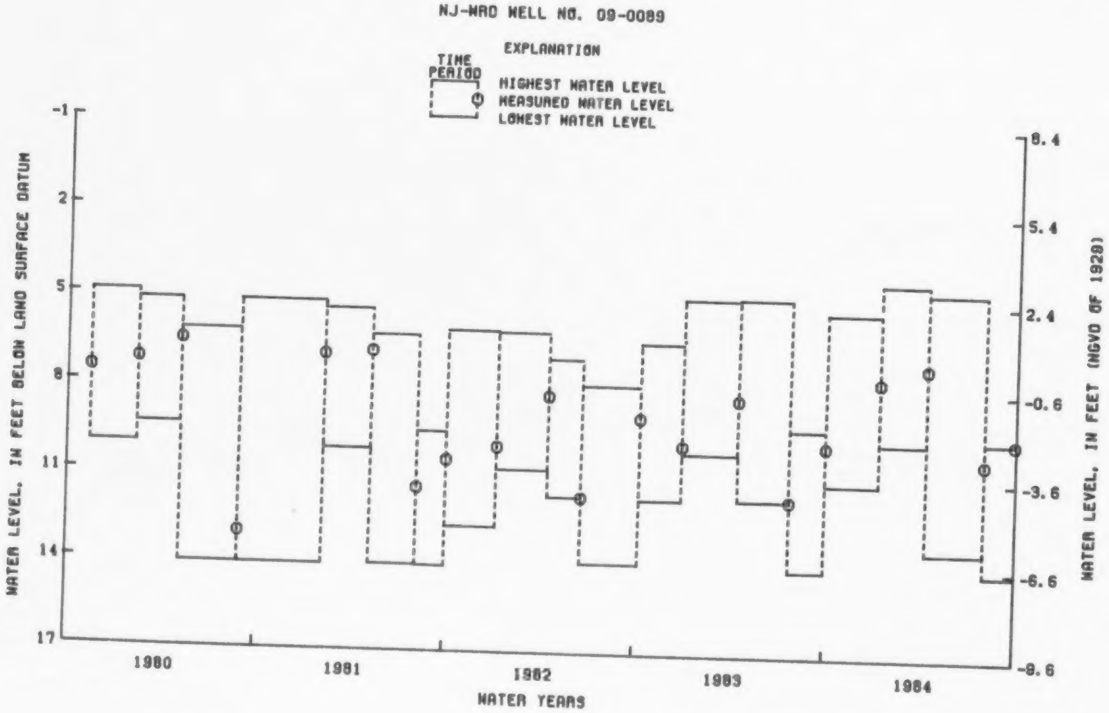
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 10, 1984	5.31	11.12
JAN. 10, 1984 TO APR. 10, 1984	4.29	9.72
APR. 10, 1984 TO JULY 31, 1984	4.58	13.38
JULY 31, 1984 TO SEPT. 27, 1984	9.60	14.09

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 10, 1984	7.63
APR. 10, 1984	7.12
JULY 31, 1984	10.32
SEPT. 27, 1984	9.62



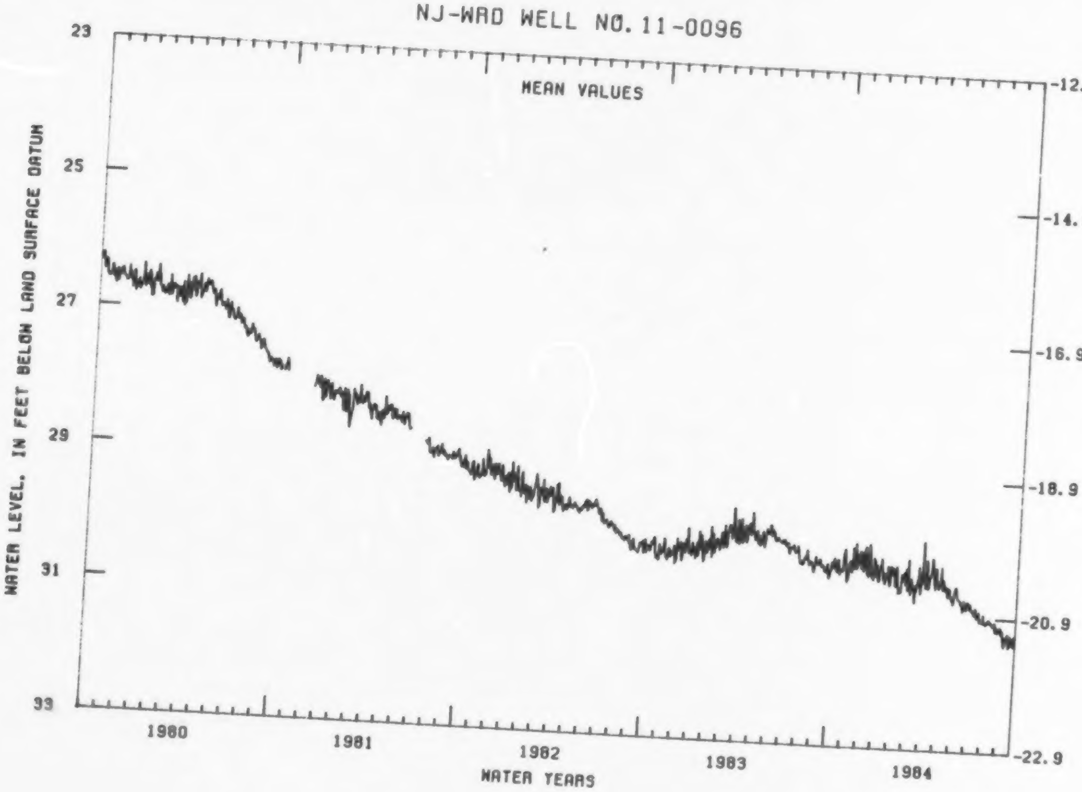
CUMBERLAND COUNTY

391828075120902. Local I.D., Jones Island 2 Obs. NJ-WRD Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, about 1.7 mi south of Cedarville at Jones Island, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point aquifer of Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 375 ft, screened 365 to 375 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 10.10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.90 ft above land-surface datum.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft below land-surface datum, Mar. 22, 1977; lowest, 31.50 ft below land-surface datum, Sept. 17 and 27, 1984.
EXTREMES FOR CURRENT YEAR.--Highest water level, 29.62 ft below land-surface datum, Mar. 29; lowest, 31.50 ft below land-surface datum, Sept. 17 and 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.20	30.23	30.15	30.25	30.28	30.54	30.17	30.51	30.72	30.87	31.05	31.25
10	30.41	30.18	30.43	30.38	30.66	30.65	30.48	30.59	30.76	30.92	31.06	31.28
15	30.43	30.16	30.19	30.47	30.39	30.64	30.25	30.62	30.84	30.99	31.10	31.21
20	30.37	30.21	30.46	30.46	30.36	30.47	30.47	30.58	30.84	31.06	31.09	31.24
25	30.11	30.08	30.37	30.28	30.35	30.53	30.42	30.74	30.76	31.06	31.20	31.27
EOM	30.50	30.30	30.52	30.34	30.33	30.43	30.48	30.58	30.80	31.06	31.12	31.24
MEAN	30.32	30.25	30.31	30.39	30.48	30.51	30.43	30.61	30.77	30.96	31.10	31.30

WTR YR 1984 MEAN 30.62 HIGH 29.90 MAR 29 LOW 31.42 SEP 17



CUMBERLAND COUNTY

392219075011301. Local I.D., Orange Street Obs. NJ-WRD Well Number, 11-0141.

LOCATION.--Lat 39°22'19", long 75°01'13", Hydrologic Unit 02040206, about 0.2 mi northeast of Route 47 on Orange Street, Millville.

Owner: Millville City Water Department.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 12 in, depth 149 ft, screened 114 to 149 ft.

INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, October 1962 to September 1975.

DATUM.--Altitude of land-surface datum is 22 ft, from topographic map.

Measuring point: Front edge of cutout in recorder housing, 4.26 ft above land-surface datum.

PERIOD OF RECORD.--October 1962 to September 1975, March 1977 to September 1984 (discontinued). Records for 1962 to 1980 are unpublished and are availabe in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.79 ft below land-surface datum, between Apr. 4 and July 31, 1984; lowest, 11.37 ft below land-surface datum, Feb. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 4.79 ft below land-surface datum, between Apr. 4 and July 31; lowest, 9.06 ft below land-surface datum, between Oct. 5 1983 and Jan. 10, 1984.

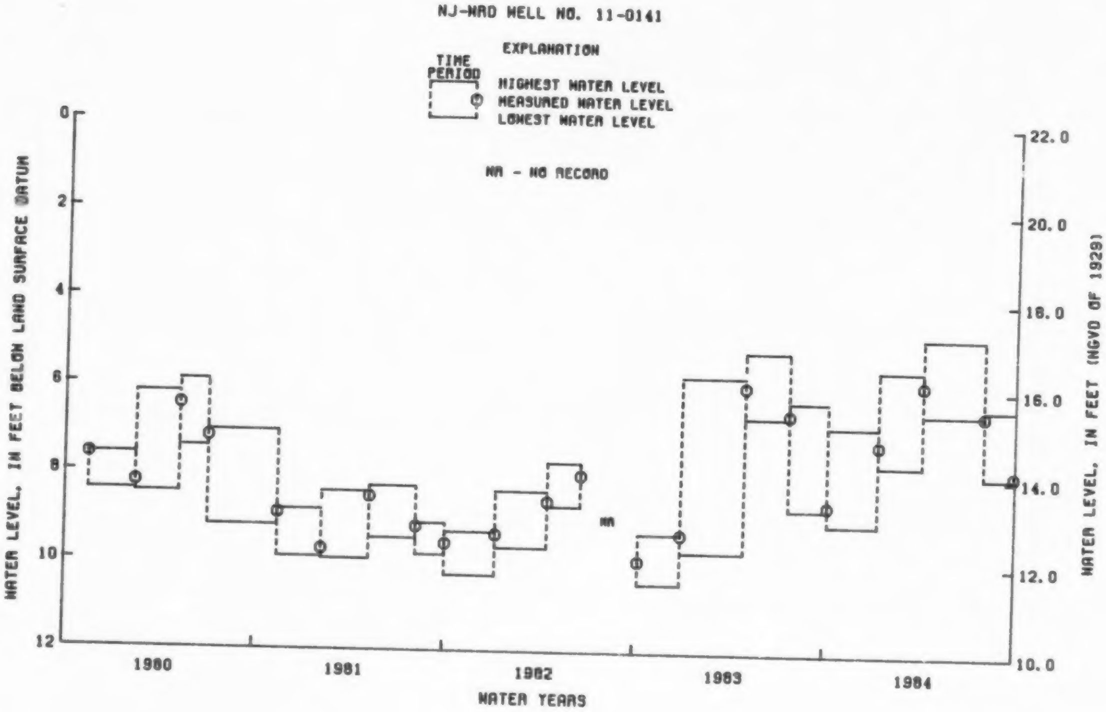
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 5, 1983 TO JAN. 10, 1984	6.83	9.06
JAN. 10, 1984 TO APR. 4, 1984	5.54	7.71
APR. 4, 1984 TO JULY 31, 1984	4.79	6.52
JULY 31, 1984 TO SEPT. 27, 1984	6.39	7.94

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 10, 1984	7.23
APR. 4, 1984	5.86
JULY 31, 1984	6.52
SEPT. 27, 1984	7.87



CUMBERLAND COUNTY

392442075191601. Local I.D., Sheppards 1 Obs. NJ-WRD Well Number, 11-0072.

LOCATION.--Lat 39°24'42", long 75°19'16", Hydrologic Unit 02040206, near the south end of Sheppards Mill Pond, about 3.5 mi south of Shiloh.

Owner: Cumberland County.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 638 ft, screened 603 to 623 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year.

DATUM.--Land-surface datum is 31.80 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 1.75 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1984 (discontinued). Periodic manual measurements, March 1973 to June 1975.

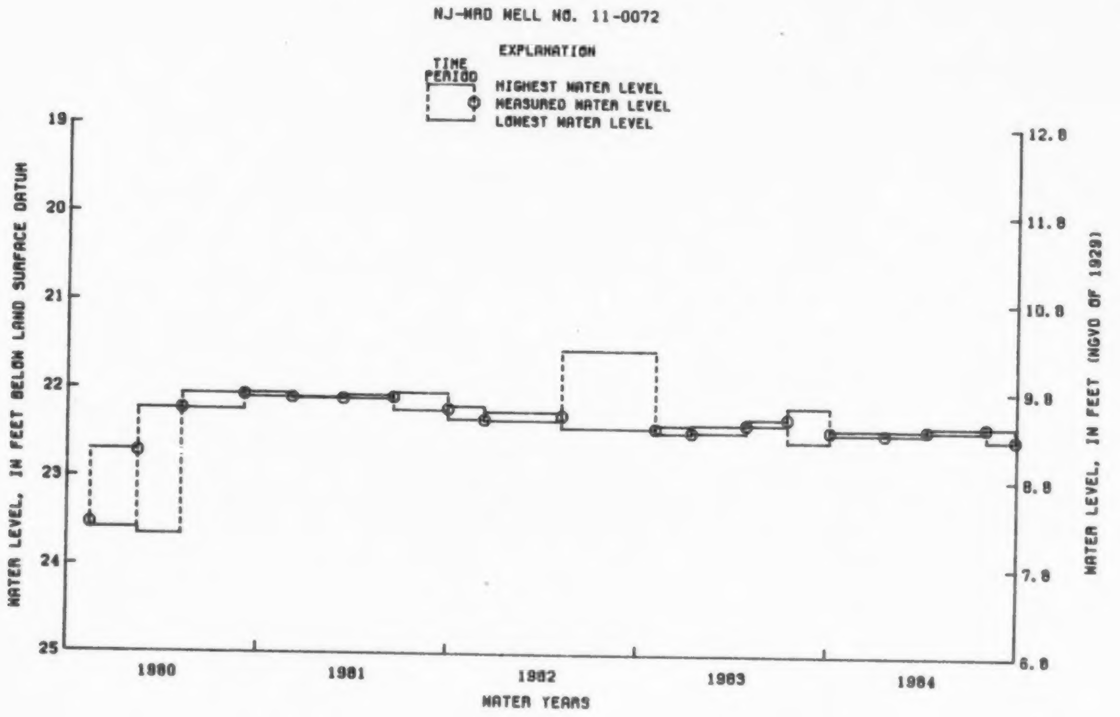
Records for 1973 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.44 ft below land-surface datum, between May 11 and Aug. 12, 1977; lowest, 24.08 ft below land-surface datum, between Sept. 13 and Nov. 14, 1979.

EXTREMES FOR CURRENT YEAR.--Highest water level, 22.39 ft below land-surface datum, between Apr. 9 and Sept. 26; lowest, 22.54 ft below land-surface datum, between Aug. 1 and Sept. 26.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1983 TO JAN. 18, 1984	22.43	22.48	JAN. 18, 1984	22.48
JAN. 18, 1984 TO APR. 9, 1984	22.43	22.48	APR. 9, 1984	22.43
APR. 9, 1984 TO AUG. 1, 1984	22.39	22.44	AUG. 1, 1984	22.39
AUG. 1, 1984 TO SEPT. 26, 1984	22.39	22.54	SEPT. 26, 1984	22.53



GLOUCESTER COUNTY

394942075131701. Local I.D., Shell Chemical 5 Obs. NJ-WRD Well Number, 15-0296.

LOCATION.--Lat 39°49'42", long 75°13'17", Hydrologic Unit 02040202, near the intersection of Mantua Grove Road and Route 295, West Deptford Township.
Owner: Shell Chemical Company.

AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 327 ft, screened 321 to 326 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 20.76 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.90 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--June 1962 to current year. Records for 1962 to 1977 are unpublished and are available in files of New Jersey District Office.

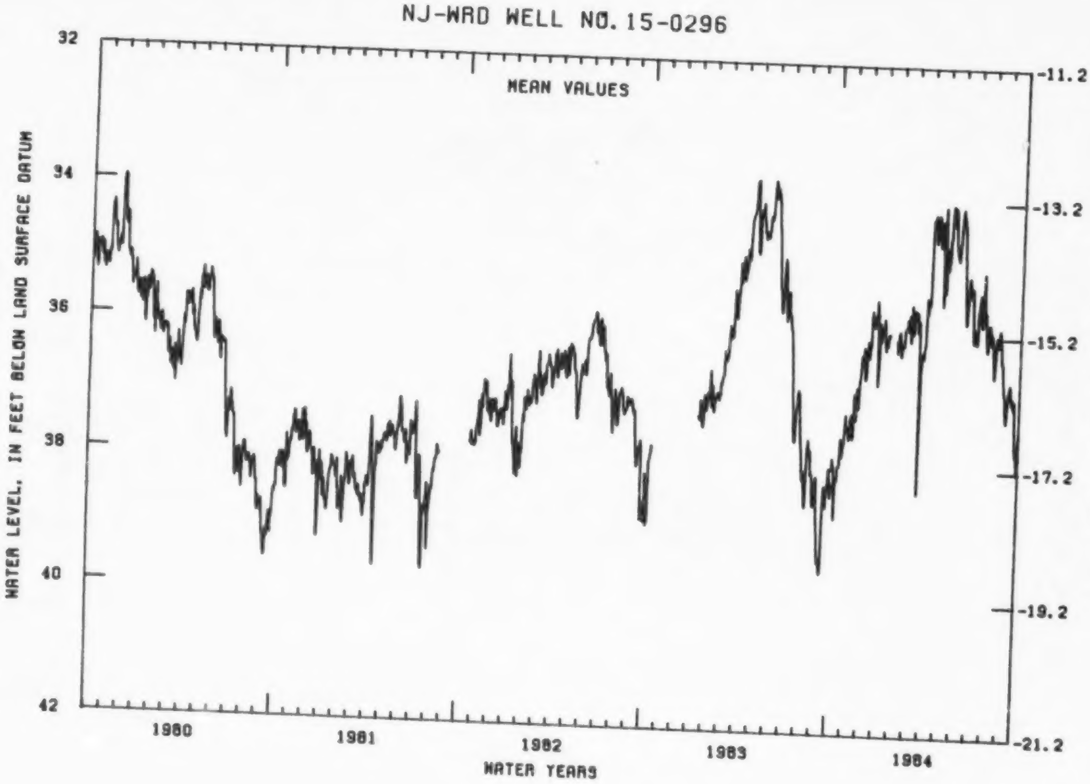
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.75 ft below land-surface datum, Dec. 6, 1962; lowest, 40.63 ft below land-surface datum, July 21, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 33.58 ft below land-surface datum, May 14; lowest, 39.09 ft below land-surface datum, Oct. 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.04	37.22	36.31	35.87	35.93	35.72	34.66	34.97	34.22	36.09	36.03	36.99
10	38.19	37.23	36.18	36.09	36.20	35.72	34.18	34.53	35.21	35.43	36.58	36.68
15	37.97	37.10	35.72	36.02	35.89	35.79	34.31	34.26	35.59	35.84	36.04	36.89
20	37.78	36.84	35.83	---	35.75	36.45	34.55	34.17	35.26	35.63	35.87	37.09
25	37.32	36.31	36.75	---	35.77	36.20	34.56	34.74	35.26	36.18	36.36	37.75
EOM	37.38	36.50	36.02	36.07	35.65	35.59	34.06	34.36	36.04	35.85	36.87	37.42
MEAN	37.81	36.95	36.06	36.02	35.97	36.06	34.58	34.60	35.15	35.76	36.25	37.20

WTR YR 1984 MEAN 36.04 HIGH 34.03 MAY 14 LOW 38.76 OCT 7

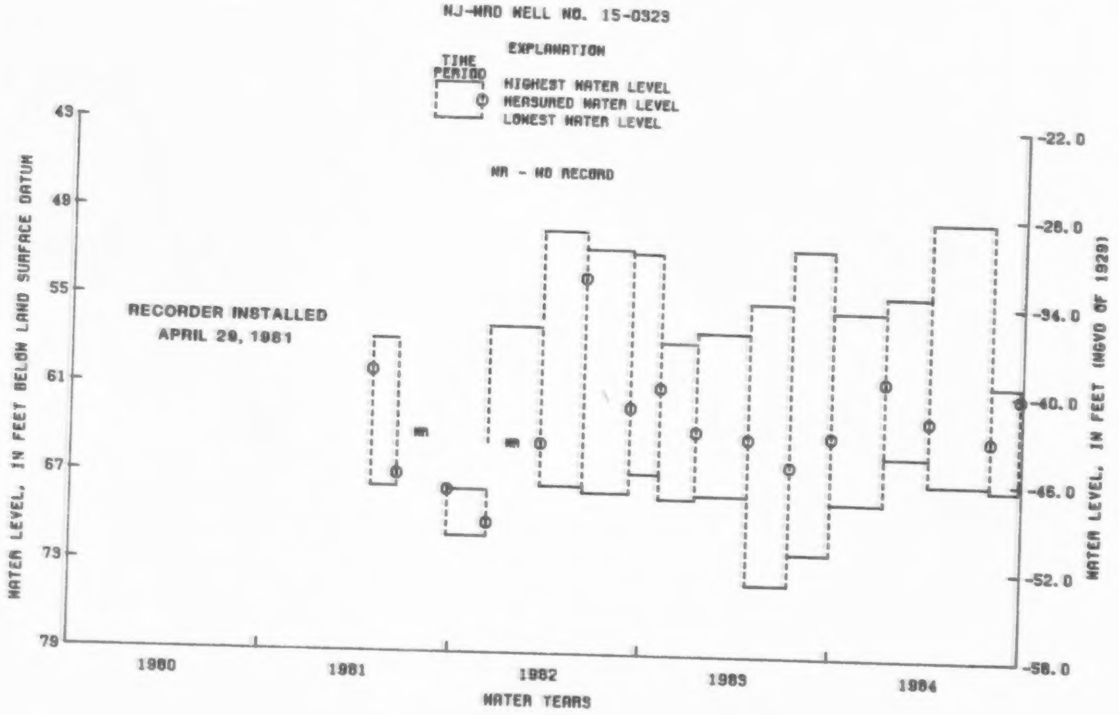


GLOUCESTER COUNTY

395232075094201. Local I.D., Eagle Point 3 Obs. NJ-WRD Well Number, 15-0323.
LOCATION.--Lat 39°52'35", long 75°09'50", Hydrologic Unit 02040202, at the Texaco Eagle Point Refinery, West Deptford Township.
Owner: Texaco Incorporated.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 276 ft, screened 255 to 275 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1981 to current year. Water-level recorder, November 1949 to July 1975.
DATUM.--Land-surface datum is 20.96 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--November 1949 to July 1975, April 1981 to current year. Periodic manual measurements, October 1976 to March 1981. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.70 ft below land-surface datum, Nov. 25, 1950; lowest, 87.30 ft below land-surface datum, June 28, 1963.
EXTREMES FOR CURRENT YEAR.--Highest water level, 49.29 ft below land-surface datum, between Apr. 4 and Aug. 1; lowest, 68.48 ft below land-surface datum, between Sept. 29, 1983 and Jan. 9, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO JAN. 9, 1984	55.47	68.48	JAN. 9, 1984	60.22
JAN. 9, 1984 TO APR. 4, 1984	54.41	65.31	APR. 4, 1984	62.83
APR. 4, 1984 TO AUG. 1, 1984	49.29	67.11	AUG. 1, 1984	64.10
AUG. 1, 1984 TO SEPT. 26, 1984	60.36	67.43	SEPT. 26, 1984	61.15



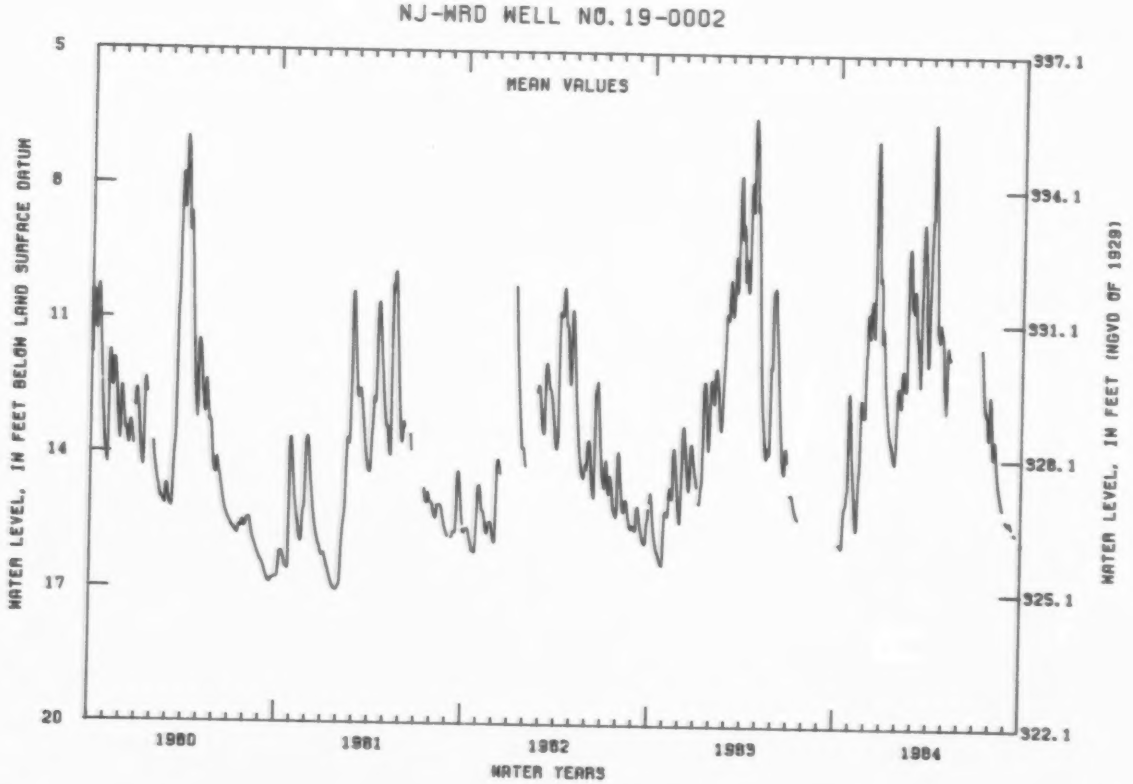
HUNTERDON COUNTY

402644074563601. Local I.D., Bird Obs. NJ-WRD Well Number, 19-0002.
LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, near U.S. Post Office, Sergeantsville.
Owner: Phillip Fleming.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 3 ft, depth 21 ft, lined with stone.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 342.08 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--June 1965 to July 1970, May 1977 to current year. Periodic manual measurements, September 1970 to September 1976. Records for 1965 to 1976 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.37 ft below land-surface datum, Apr. 18, 1983; lowest, 17.04 ft below land-surface datum, Jan. 26-28, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 6.43 ft below land-surface datum, Apr. 6-7; lowest, 15.99 ft below land-surface datum, Oct. 12-13.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	14.89	10.70	12.54	12.45	11.10	7.34	11.70		---	13.95	15.39
10	15.92	15.59	10.82	13.31	12.22	11.72	7.94	11.69		---	13.92	15.46
15	15.46	14.27	6.91	13.63	10.89	9.87	10.77	---		12.17	14.56	---
20	14.98	12.86	9.07	13.96	9.41	9.12	11.14	---		12.88	14.88	---
25	12.67	13.04	10.01	13.69	10.50	10.92	11.22	---		13.29	---	---
EOM	13.89	10.76	11.31	12.41	10.32	10.02	12.35	---		12.76	15.34	15.83
MEAN	14.65	13.68	10.00	13.16	11.21	10.65	9.92	---		12.71	14.33	---

WTR YR 1984 MEAN 12.34 HIGH 6.50 APR 6 AND OTHERS LOW 15.98 OCT 12



SALEM COUNTY

393348075275701. Local I.D., Salem 1 Obs. NJ-WRD Well Number, 33-0251.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.

Owner: U.S. Geological Survey.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 709 ft, screened 699 to 709 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, December 1965 to August 1975.

DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land-surface datum.

PERIOD OF RECORD.--December 1965 to August 1975, May 1977 to current year. Records for 1965 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.97 ft below land-surface datum, Dec. 13, 1965; lowest, 32.07 ft below land-surface datum, between Aug. 1 and Sept. 26, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 29.96 ft below land-surface datum, between Sept. 29, 1983 and Jan. 17, 1984; lowest, 32.07 ft below land-surface datum, between Aug. 1 and Sept. 26.

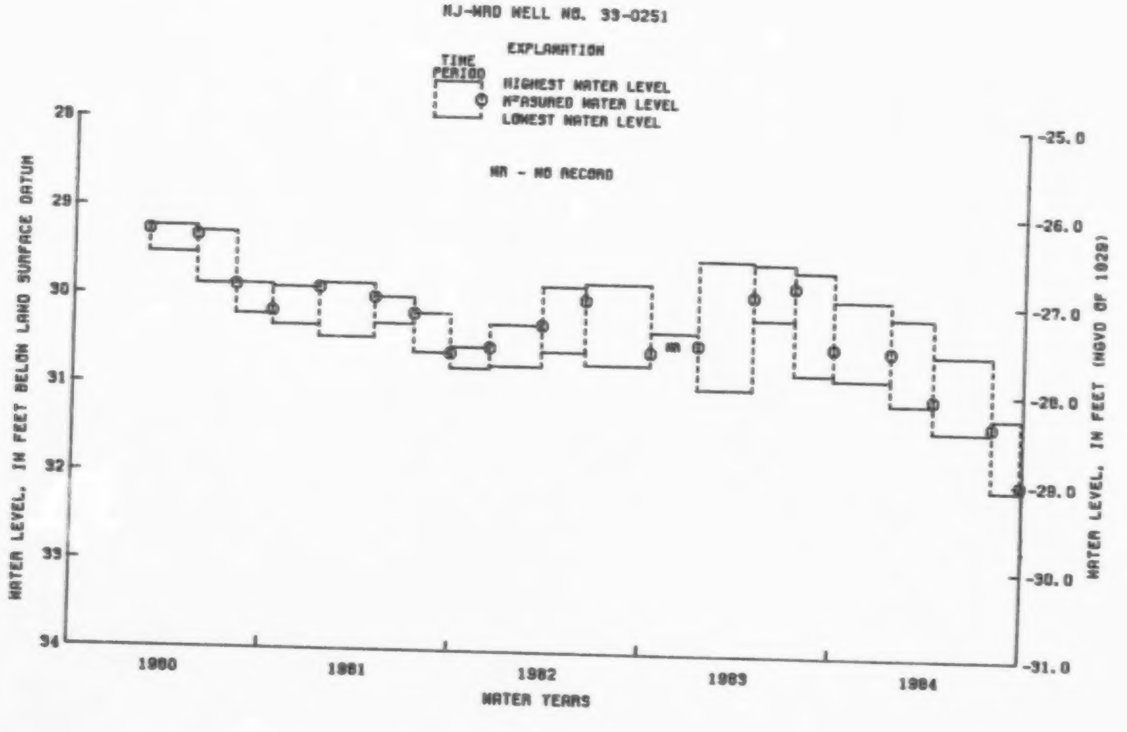
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 17, 1984	29.96	30.85
JAN. 17, 1984 TO APR. 9, 1984	30.15	31.12
APR. 9, 1984 TO AUG. 1, 1984	30.56	31.42
AUG. 1, 1984 TO SEPT. 26, 1984	31.26	32.07

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 17, 1984	30.53
APR. 9, 1984	31.06
AUG. 1, 1984	31.35
SEPT. 26, 1984	32.00



SALEM COUNTY

393348075275703. Local I.D., Salem 3 Obs. NJ-WRD Well Number, 33-0253.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.

AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 340 ft, screened 335 to 340 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to August 1975.

DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to August 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.28 ft below land-surface datum, Feb. 13, 1966; lowest, 27.19 ft below land-surface datum, between Aug. 1 and Sept. 26, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 25.78 ft below land-surface datum, between Jan. 17 and Apr. 9; lowest, 27.19 ft below land-surface datum, between Aug. 1 and Sept. 26.

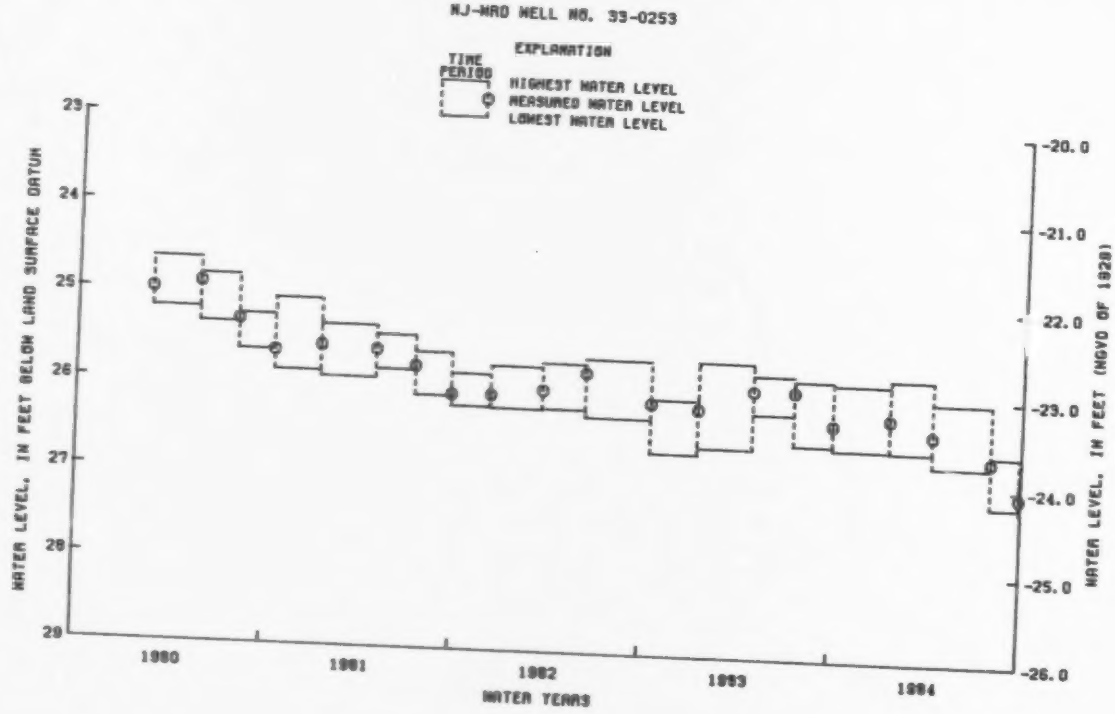
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 17, 1984	25.85	26.59
JAN. 17, 1984 TO APR. 9, 1984	25.78	26.60
APR. 9, 1984 TO AUG. 1, 1984	26.03	26.75
AUG. 1, 1984 TO SEPT. 26, 1984	26.61	27.19

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 17, 1984	26.23
APR. 9, 1984	26.40
AUG. 1, 1984	26.68
SEPT. 26, 1984	27.07



SALEM COUNTY

393348075275702. Local I.D., Salem 2 Obs. NJ-WRD Well Number, 33-0252.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 96 ft, screened 91 to 96 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to July 1975.

DATUM.--Land-surface datum is 3.25 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.77 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to July 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.51 ft above land-surface datum, between Jan. 12 and Apr. 27, 1983; lowest, 6.45 ft below land-surface datum, Sept. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 0.12 ft above land-surface datum, between Jan. 17 and Apr. 9; lowest, 2.99 ft below land-surface datum, between Sept. 29, 1983 and Jan. 17, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

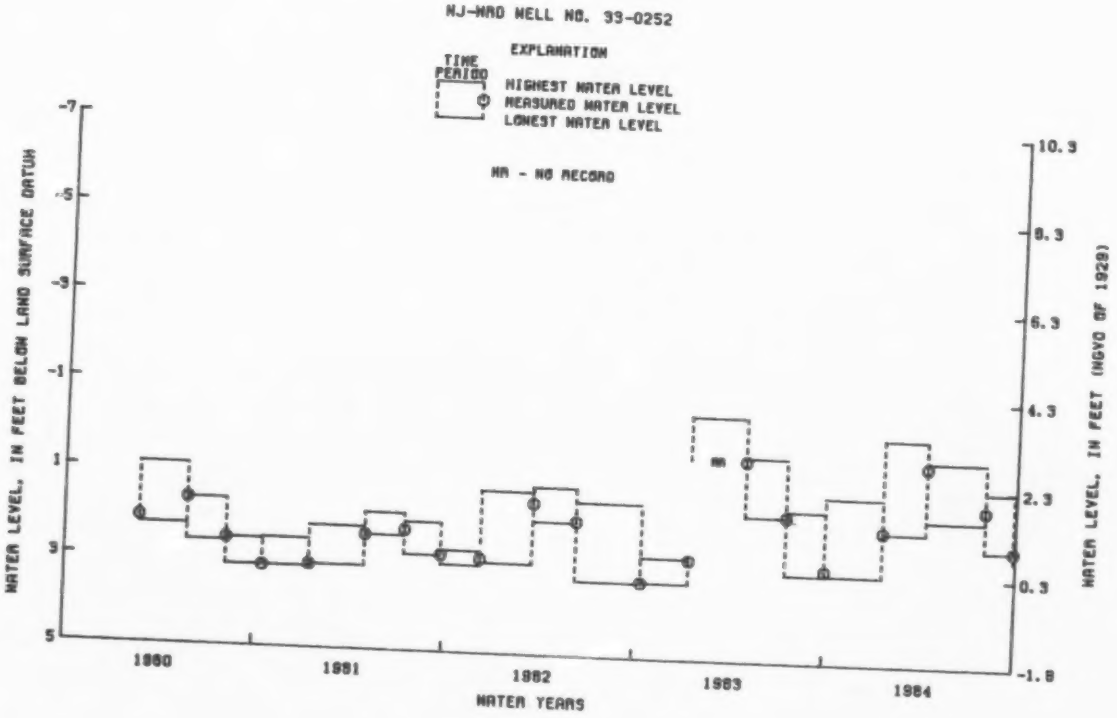
WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 17, 1984	1.23	2.99
JAN. 17, 1984 TO APR. 9, 1984	-0.12*	1.99
APR. 9, 1984 TO AUG. 1, 1984	0.36	1.70
AUG. 1, 1984 TO SEPT. 26, 1984	1.01	2.34

*Water level above land surface.

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 17, 1984	1.97
APR. 9, 1984	0.49
AUG. 1, 1984	1.43
SEPT. 26, 1984	2.33



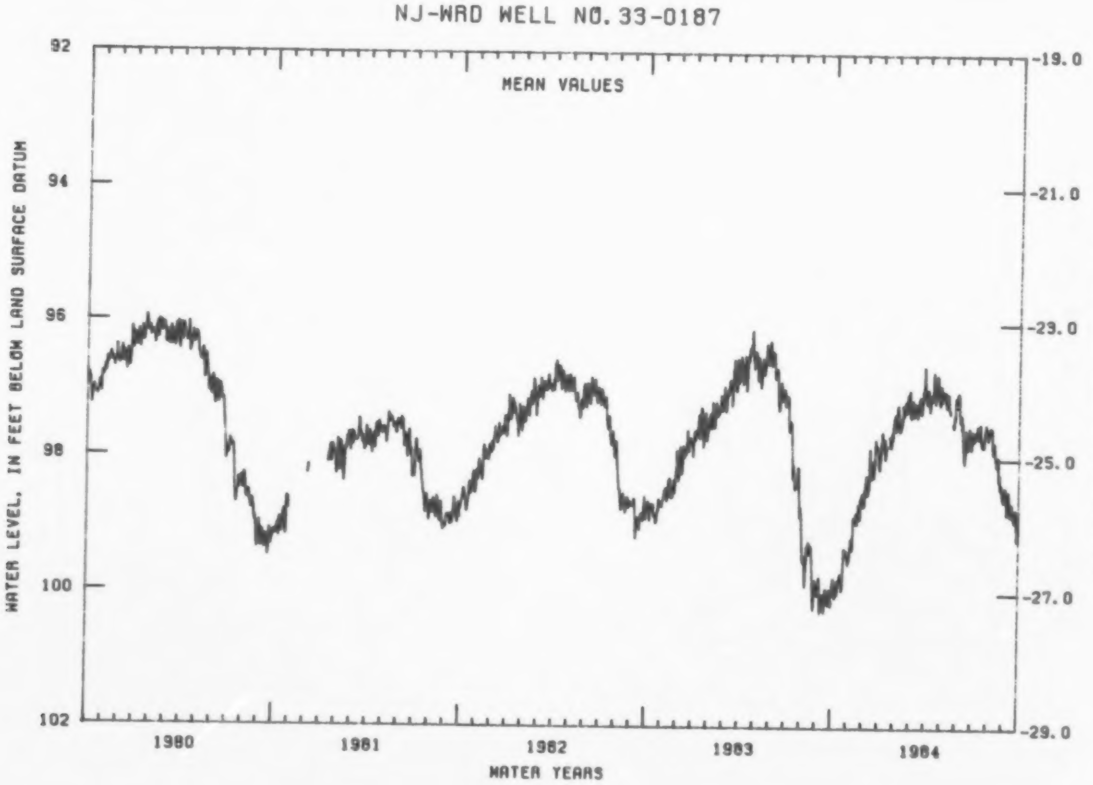
SALEM COUNTY

394037075191501. Local I.D., Point Airy Obs. NJ-WRD Well Number, 33-0187.
LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy and Woodstown-Swedesboro Roads, 1 mi north of Woodstown Borough boundary.
Owner: U.S. Geological Survey.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 672 ft, screened 664 to 672 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 72.97 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch casing, 1.80 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--February 1959 to August 1975, March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft below land-surface datum, Mar. 6, 1959; lowest, 100.52 ft below land-surface datum, Aug. 6-7, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 96.54 ft below land-surface datum, Mar. 29; lowest, 100.19 ft below land-surface datum, Oct. 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	99.78	99.29	98.36	97.72	97.19	97.20	96.95	97.05	97.31	97.61	97.58	98.61
10	99.89	99.14	98.44	97.78	97.59	97.33	97.11	97.22	97.55	97.65	97.92	98.46
15	99.87	98.96	98.15	97.80	97.19	97.38	96.85	97.20	98.06	97.60	97.99	98.66
20	99.96	98.76	98.22	97.66	97.14	97.16	96.99	---	97.67	97.81	97.95	98.83
25	99.33	98.58	97.76	97.61	97.02	97.08	96.96	97.53	97.52	97.60	98.37	98.92
EOM	99.44	98.71	98.11	97.33	97.11	97.02	96.90	97.07	97.71	97.69	98.63	98.75
MEAN	99.74	98.97	98.17	97.74	97.31	97.19	97.03	97.17	97.58	97.64	98.01	98.74

WTR YR 1984 MEAN 97.96 HIGH 96.62 MAR 29 LOW 100.07 OCT 7



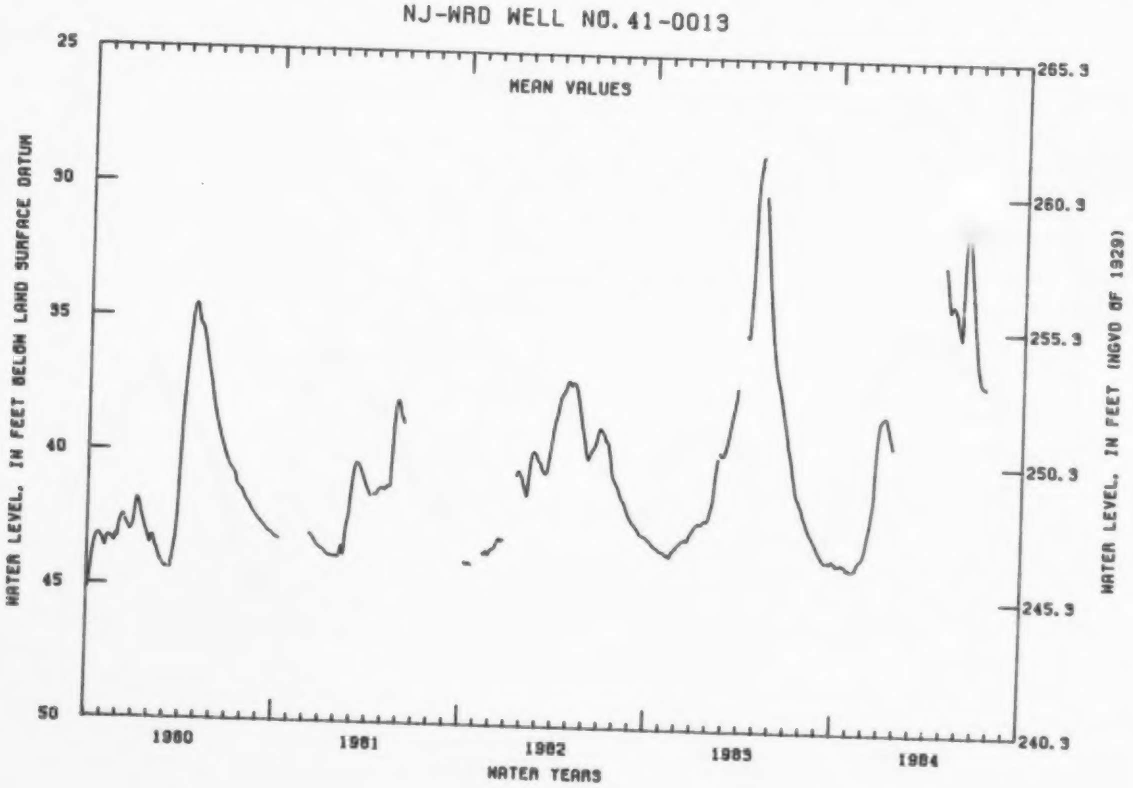
WARREN COUNTY

405050075033201. Local I.D., Hoffmann LaRoche 4 Obs. NJ-WRD Well Number, 41-0013.
LOCATION.--Lat 40°50'50", long 75°03'32", Hydrologic Unit 02040105, 1 mi northeast of Belvidere on Route 46.
Owner: Hoffmann LaRoche, Incorporated.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in, depth 87 ft, screened 67 to 87 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 290.30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
REMARKS.--Water level affected by stage of Delaware River.
PERIOD OF RECORD.--September 1960 to July 1984 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.59 ft below land-surface datum, Apr. 30, 1983; lowest, 46.59 ft below land-surface datum, Sept. 18, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 30.88 ft below land-surface datum, June 8; lowest, 43.92 ft below land-surface datum, Nov. 1-3.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.70	43.91	42.40	38.20			---	34.14	31.25	36.64		
10	43.72	43.83	41.79	38.60			---	34.02	31.08	36.96		
15	43.67	43.59	40.70	39.03			---	34.08	32.35	36.96		
20	43.73	43.50	39.08	---			---	34.40	33.70	---		
25	43.86	43.33	38.38	---			---	34.88	34.92	---		
EOM	43.90	42.91	38.23	---			33.18	34.08	36.03	---		
MEAN	43.75	43.58	40.34	---			---	34.32	33.01	---		

WTR YR 1984 MEAN 38.62 HIGH 30.89 JUN 8 LOW 43.92 NOV 1 AND OTHERS



QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BURLINGTON COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNIT)
05-0689	USGS-LEB ST FOR OBS 23-D	39 51 52	074 28 48	152	33*	121CKKD	84-06-27	12.0	52	6.6
05-0648	WILLINGBORO 3	40 01 03	074 54 09	35	306-316	211MRPAM	84-09-13	14.5	250	7.1

LOCAL IDENTIFIER	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE FET-FLD (MG/L AS HCO3)	CAR- BONATE FET-FLD (MG/L AS CO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
USGS-LEB ST FOR OBS 23-D	18	6.6	.31	1.6	.20	12	--	14	9.1	3.5
WILLINGBORO 3	82	25	4.8	6.1	5.4	110	--	92	34	2.4

LOCAL IDENTIFIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
USGS-LEB ST FOR OBS 23-D	.10	2.9	48	.070	<.10	.160	.16	--	<.010	70
WILLINGBORO 3	.10	8.1	138	<.010	<.10	.150	.50	--	.120	10

LOCAL IDENTIFIER	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
USGS-LEB ST FOR OBS 23-D	<1	2	<1	22	4	2	29	.2
WILLINGBORO 3	1	<1	2	<1	7000	5	110	<.1

LOCAL IDENTIFIER	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-LEB ST FOR OBS 23-D	38	1.1	<1
WILLINGBORO 3	<3	.50	3

* Total depth of well

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
09-0027	CAPE MAY CITY WD	CMCWD 1	385643	745533	7	277 - 306	121CNSY
09-0028	HARB-WALK REF CO	HW 2	385641	745749	10	235 - 265	121CNSY
09-0036	CAPE MAY CITY WD	CMCWD 2	385701	745528	10	174 - 282	121CNSY
09-0052	LOWER TWP MUA	LTMUA 1	385851	745715	18	241 - 262	121CNSY
09-0054	LOWER TWP MUA	LTMUA 2	385905	745625	14	212 - 247	121CNSY
09-0067	WILDWOOD WD	RIO GRANDE 38	390135	745352	10	461 - 590	122KRKDU
09-0070	WILDWOOD WD	RIO GRANDE 36	390137	745352	10	48 - 63	112CPMY
09-0072	WILDWOOD WD	RIO GRANDE 31	390138	745350	10	108 - 135	112ESRNS
09-0074	WILDWOOD WD	RIO GRANDE 29	390139	745349	8	191 - 231	121CNSY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UMHOS)	PH (UNITS)	CHLORIDE DIS-SOLVED (MG/L AS CL)
09-0027	CAPE MAY CITY WD	CMCWD 1	10/14/1983	15.5	600	7.4	100.0
09-0028	HARB-WALK REF CO	HW 2	10/14/1983	15.5	1,000	7.4	220.0
09-0036	CAPE MAY CITY WD	CMCWD 2	10/14/1983	15.5	460	7.5	66.0
09-0052	LOWER TWP MUA	LTMUA 1	10/14/1983	15.5	255	7.8	11.0
09-0054	LOWER TWP MUA	LTMUA 2	10/14/1983	15.0	250	7.8	14.0
09-0067	WILDWOOD W D	RIO GRANDE 38	10/13/1983	17.0	350	8.4	26.0
09-0070	WILDWOOD W D	RIO GRANDE 36	10/13/1983	15.0	235	6.2	27.0
09-0072	WILDWOOD W D	RIO GRANDE 31	10/13/1983	14.0	192	7.7	11.0
09-0074	WILDWOOD W D	RIO GRANDE 29	10/13/1983	14.5	169	7.6	13.0

Aquifer unit:

112CPMY - Cape May Formation, Undifferentiated
112ESRNS - Cape May Formation, Estuarine Sand Facies
121CNSY - Cohansey Sand
122KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CUMBERLAND COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNIT)
11-0161	CUMBER CO-FAIRGROUNDS 1	39 25 26	075 06 43	80	171-186	121CKKD	84-06-26	13.5	25	5.2
11-0044	CUMBER CO-VOCATION SCH 3	39 27 33	075 09 24	82	361-376	124PNPN	84-06-26	15.5	510	8.7

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
CUMBER CO-FAIRGROUNDS 1	3	.79	.32	1.3	.80	5	--	5	5.1	2.4
CUMBER CO-VOCATION SCH 3	42	8.4	5.1	95	9.4	270	5	222	4.5	45

LOCAL IDENTIFIER	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
CUMBER CO-FAIRGROUNDS 1	<.10	10	38	.050	<.10	.140	.40	--	<.010	100
CUMBER CO-VOCATION SCH 3	.90	11	346	.070	<.10	.070	.30	--	.050	30

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
CUMBER CO-FAIRGROUNDS 1	<1	<1	<1	2	490	<1	11	<.1
CUMBER CO-VOCATION SCH 3	1	<1	<1	1	48	<1	2	.1

LOCAL IDENTIFIER	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
CUMBER CO-FAIRGROUNDS 1	18	.30	<1
CUMBER CO-VOCATION SCH 3	7	1.1	<1

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
124PNPN - Piney Point aquifer

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GLOUCESTER COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
15-0001	CLAYTON WD	CWD 3	393913	750517	133	746 - 800	211MRPAU
15-0003	CLAYTON WD	CWD 4-1973	394015	750559	140	670 - 740	211MRPAU
15-0361	GLASSBORO WD	GWD 5	394141	750710	140	610 - 657	211MRPAU
15-0060	GLASSBORO WD	GWD 3	394206	750758	150	562 - 612	211MRPAU
15-0385	PITMAN WD	PWD P4	394345	750804	125	520*	211MRPAU
15-0129	SO JERSEY WC	SJWC 1	394409	751330	35	263*	211MRPAU
15-0236	SWEDESBORO WD	SBWD 3	394434	751843	75	241 - 312	211MRPAU
15-0137	PURELAND WC	PURE 2	394535	752054	37	158 - 208	211MRPAM
15-0137	PURELAND WC	PURE 2	394535	752054	37	158 - 208	211MRPAM
15-0144	PURELAND WC	PURE 1-1973	394613	752129	7	81 - 136	211MRPAM
15-0144	PURELAND WC	PURE 1-1973	394613	752129	7	81 - 136	211MRPAM
15-0191	MANTUA TWP MUA	MTMUA 2	394629	750859	60	336 - 368	211MRPAU
15-0192	MANTUA TWP MUA	MTMUA 5	394641	751109	88	315 - 337	211MRPAU
15-0194	MANTUA TWP MUA	MTMUA 4	394732	751037	10	233 - 265	211MRPAU
15-0159	MONSANTO CHEM	BRIDGEPORT E1	394736	752344	11	56 - 81	211MRPAM
15-0275	WENONAH WD	WWD 2	394751	750912	50	268 - 310	211MRPAU
15-0166	PENNS GROVE WSC	BRIDGEPORT 2	394755	752108	5	65 - 85	211MRPAM
15-0167	MONSANTO CHEM	3	394726	742319	10	64 - 94	211MRPAM
15-0355	E GREENWICH TWP WD	EGTWD 3	394822	751247	42	205 - 245	211MRPAU
15-0283	SHELL CHEM CO	SHELL 3	394919	751256	30	358 - 383	211MRPAL
15-0284	SHELL CHEM CO	SHELL 4	394919	751256	30	127 - 157	211MRPAU
15-0210	PAULSBORO WD	6-1973	394921	751417	15	185 - 227	211MRPAM
15-0072	E I DUPONT	REPAUNO 3	394936	751747	6	91 - 101	211MRPAM
15-0079	E I DUPONT	REPAUNO 6	394944	751734	10	84 - 109	211MRPAM
15-0098	MOBIL OIL CO	MOBIL 45	395006	751532	3	95 - 118	211MRPAM
15-0118	MOBIL OIL CO	MOBIL 47	395036	751501	20	220 - 240	211MRPAL
15-0220	ESSEX CHEM CO	OLIN 1	395051	751349	10	234 - 256	211MRPAL
15-0373	W DEPTFORD TWP WD	WDTWD 7	395126	750856	28	323 - 363	211MRPAL
15-0207	NATIONAL PARK WD	NPWD 2	395156	751053	30	241 - 282	211MRPAL
15-0318	TEXAS OIL CO	EAGLE POINT 2	395207	750930	17	259 - 289	211MRPAL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UMHOS)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
15-0001	CLAYTON WD	CWD 3	9/25/1984	20.5	1,050	8.4	210.0	140.0
15-0003	CLAYTON WD	CWD 4-1973	9/25/1984	20.0	902	8.4	190.0	110.0
15-0361	GLASSBORO WD	GWD 5	9/25/1984	19.0	650	8.4	140.0	62.0
15-0060	GLASSBORO WD	GWD 3	9/25/1984	19.5	705	8.4	150.0	69.0
15-0385	PITMAN WD	PWD P4	9/25/1984	16.5	578	8.3	120.0	45.0
15-0129	SO JERSEY WC	SJWC 1	9/26/1984	15.0	850	8.2	190.0	170.0
15-0236	SWEDESBORO WD	SBWD 3	9/25/1984	14.5	380	7.3	46.0	45.0
15-0137	PURELAND WC	PURE 2	10/11/1983	14.0	217	6.5	--	20.0
15-0137	PURELAND WC	PURE 2	9/26/1984	13.5	250	6.8	23.0	23.0
15-0144	PURELAND WC	PURE 1-1973	10/11/1983	13.5	162	5.7	--	35.0
15-0144	PURELAND WC	PURE 1-1973	9/26/1984	13.0	165	6.0	23.0	34.0
15-0191	MANTUA TWP MUA	MTMUA 2	9/20/1984	14.5	415	8.2	83.0	30.0
15-0192	MANTUA TWP MUA	MTMUA 5	9/20/1984	15.0	500	8.2	100.0	44.0
15-0194	MANTUA TWP MUA	MTMUA 4	9/20/1984	17.0	450	8.1	88.0	37.0
15-0159	MONSANTO CHEM	BRIDGEPORT E1	9/26/1984	13.5	1,050	6.4	170.0	300.0
15-0275	WENONAH WD	WWD 2	9/20/1984	15.5	355	8.0	67.0	24.0
15-0166	PENNS GROVE WSC	BRIDGEPORT 2	9/26/1984	13.5	199	5.0	10.0	17.0
15-0167	MONSANTO CHEM	3	9/26/1984	13.0	750	6.5	110.0	210.0
15-0355	E GREENWICH TWP WD	EGTWD 3	9/19/1984	14.5	444	7.9	88.0	53.0
15-0283	SHELL CHEM CO	SHELL 3	9/19/1984	14.5	748	7.7	140.0	150.0
15-0284	SHELL CHEM CO	SHELL 4	9/19/1984	14.5	370	7.5	34.0	14.0
15-0210	PAULSBORO WD	6-1973	9/20/1984	14.0	245	5.8	26.0	31.0
15-0072	E I DUPONT	REPAUNO 3	10/11/1983	14.0	405	5.3	--	100.0
15-0079	E I DUPONT	REPAUNO 6	10/11/1983	14.5	455	6.3	--	100.0
15-0098	MOBIL OIL CO	MOBIL 45	9/20/1984	15.0	1,750	5.2	280.0	83.0
15-0118	MOBIL OIL CO	MOBIL 47	9/20/1984	14.5	465	6.0	75.0	110.0
15-0220	ESSEX CHEM CO	OLIN 1	10/11/1983	15.0	830	6.7	--	160.0
15-0373	W DEPTFORD TWP WD	WDTWD 7	10/13/1983	14.5	246	7.5	--	27.0
15-0207	NATIONAL PARK WD	NPWD 2	9/19/1984	13.5	322	7.0	48.0	28.0
15-0318	TEXAS OIL CO	EAGLE POINT 2	9/19/1984	14.0	480	6.7	48.0	29.0

* Total depth of well

Aquifer unit:

211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MERCER COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	TOTAL DEPTH OF WELL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNIT)
21-0028	NJ CIVIL DEFENSE OBS 1	40 15 52	074 50 18	123	330	231SCKN	84-09-18	12.5	505	6.9

LOCAL IDENTIFIER	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NJ CIVIL DEFENSE OBS 1	210	51	20	11	1.0	160	--	128	63	23

LOCAL IDENTIFIER	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NJ CIVIL DEFENSE OBS 1	.10	14	313	.020	7.6	<.010	.40	--	<.010	<10

LOCAL IDENTIFIER	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NJ CIVIL DEFENSE OBS 1	<1	<1	<1	1	10	M	15	<.1

LOCAL IDENTIFIER	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
NJ CIVIL DEFENSE OBS 1	7	.50	2

Aquifer unit:

231SCKN - Stockton Formation

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

OCEAN COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNIT)
29-0772	LEBAN SF GOOSE POND 1-83	39 54 51	074 27 02	135	31- 41	121CKKD	84-09-11	13.0	23	4.5

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
LEBAN SF GOOSE POND 1-83	1	.33	.15	1.6	.30	--	--	--	2.1	4.4

LOCAL IDENTIFIER	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
LEBAN SF GOOSE POND 1-83	<.10	6.1	16	<.010	<.10	.040	.20	--	<.010	<10

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
LEBAN SF GOOSE POND 1-83	<1	<1	<1	<1	1300	2	5	<.1

LOCAL IDENTIFIER	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
LEBAN SF GOOSE POND 1-83	15	.50	<1

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SALEM COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
33-0354	WOODSTOWN WD	WWD 2	393904	751946	45	670 - 705	211MRPAM
33-0362	WOODSTOWN WD	WWD 3	393926	751927	60	692 - 712	211MRPAM
33-0118	PENNSVILLE TWP WD	PTWD 1	393958	753045	8	213 - 238	211MRPAM
33-0119	PENNSVILLE TWP WD	PTWD 2	394009	753043	7	210 - 230	211MRPAM
33-0122	ATL CITY ELEC	DEEPWATER 3R	394045	753018	10	165 - 235	211MRPAM
33-0125	ATL CITY ELEC	DEEPWATER 5	394051	753030	10	149 - 219	211MRPAM
33-0127	ATL CITY ELEC	DEEPWATER 6	394100	753030	10	158 - 188	211MRPAM
33-0137	E I DUPONT	DRINKWATER 8	394112	753028	14	317 - 347	211MRPAL
33-0345	PENNS GROVE WSC	2B	394247	752714	19	45 - 58	211MRPAU
33-0346	PENNS GROVE WSC	LAYNE 1	394256	752718	19	317 - 357	211MRPAL
33-0083	B F GOODRICH CO	9 (PW-1)	394547	752535	10	93 - 133	211MRPAM
33-0085	B F GOODRICH CO	6 (PW-2)	394556	752530	10	109 - 129	211MRPAM
33-0086	B F GOODRICH CO	4 (PW-3)	394557	752523	13	169 - 189	211MRPAL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	CHLORIDE DIS-SOLVED (MG/L AS CL)
33-0354	WOODSTOWN WD	WWD 2	11/ 3/1983	16.5	1,000	8.0	200.0
33-0362	WOODSTOWN WD	WWD 3	11/ 3/1983	16.5	875	8.0	160.0
33-0118	PENNSVILLE TWP WD	PTWD 1	11/ 3/1983	14.0	430	7.1	67.0
33-0119	PENNSVILLE TWP WD	PTWD 2	11/ 3/1983	14.0	600	7.0	120.0
33-0122	ATL CITY ELEC	DEEPWATER 3R	11/ 3/1983	13.5	417	7.0	56.0
33-0125	ATL CITY ELEC	DEEPWATER 5	11/ 3/1983	14.5	495	6.9	82.0
33-0127	ATL CITY ELEC	DEEPWATER 6	11/ 3/1983	15.0	465	7.0	74.0
33-0137	E I DUPONT	DRINKWATER 8	11/ 4/1983	15.0	515	7.7	77.0
33-0345	PENNS GROVE WSC	2B	11/ 4/1983	13.0	200	5.1	14.0
33-0346	PENNS GROVE WSC	LAYNE 1	11/ 4/1983	14.0	950	7.5	220.0
33-0083	B F GOODRICH CO	9 (PW-1)	11/ 4/1983	12.5	111	6.1	12.0
33-0085	B F GOODRICH CO	6 (PW-2)	11/ 4/1983	13.0	165	6.0	21.0
33-0086	B F GOODRICH CO	4 (PW-3)	11/ 4/1983	13.5	1,240	7.2	290.0

Aquifer unit:

211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\mathrm{x}10^{1}$	millimeters (mm)
	$2.54\mathrm{x}10^{-2}$	meters (m)
feet (ft)	$3.048\mathrm{x}10^{-1}$	meters (m)
miles (mi)	$1.609\mathrm{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\mathrm{x}10^{3}$	square meters (m^2)
	$4.047\mathrm{x}10^{-1}$	square hectometers (hm^2)
	$4.047\mathrm{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\mathrm{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\mathrm{x}10^{0}$	liters (L)
	$3.785\mathrm{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\mathrm{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\mathrm{x}10^{3}$	cubic meters (m^3)
	$3.785\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\mathrm{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\mathrm{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\mathrm{x}10^{3}$	cubic meters (m^3)
	$2.447\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\mathrm{x}10^{3}$	cubic meters (m^3)
	$1.233\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\mathrm{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\mathrm{x}10^{1}$	liters per second (L/s)
	$2.832\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\mathrm{x}10^{-2}$	liters per second (L/s)
	$6.309\mathrm{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\mathrm{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\mathrm{x}10^{-1}$	megagrams (Mg) or metric tons